# INDIA

A REFERENCE ANNUAL
1977 & 78

*Compiled by*

THE RESEARCH AND REFERENCE DIVISION
MINISTRY OF INFORMATION AND BROADCASTING
GOVERNMENT OF INDIA

PUBLICATIONS DIVISION
MINISTRY OF INFORMATION AND BROADCASTING
GOVERNMENT OF INDIA

*August 1978 ( Sravana 1900 )*



PRICE Rs 26 00 £ 4 00 $ 8 00

PUBLISHED BY THE DIRECTOR PUBLICATIONS DIVISION
MINISTRY OF INFORMATION AND BROADCASTING
GOVERNMENT OF INDIA PATIALA HOUSE
NEW DELHI-110001

**Sales Emporia ● Publications Division**

SUPER BAZAR CONNAUGHT CIRCUS NEW DELHI-110001
COMMERCE HOUSE CURRIMBHOY ROAD BALLARD PIER
BOMBAY-400038
8 ESPLANADE EAST CALCUTTA-700001
SHASTRI BHAVAN 35 HADDOWS ROAD MADRAS-600006

PRINTED AT GOVERNMENT OF INDIA PRESS FARIDABAD

# PREFACE

INDIA 1977-78 is the 24th edition of the Reference Annual compiled by the Research and Reference Division of the Ministry of Information and Broadcasting. The Annual contains information on various aspects of our national life, collected from many official and other authentic sources The publication is an established work of reference but it does not claim to be comprehensive or exhaustive

The special article 'Year of Change' at the beginning of the Annual sets out the events following the announcement of general elections to Lok Sabha, the defeat of the ruling Congress Party and victory to the newly formed Janata Party. The new Government's endeavours to undo some of the excesses of the previous Government, and to restore civil liberties to citizens, freedom to the Press and dignity and power to the judiciary are highlighted in the article.

Keeping the interests of the tourists in view, three more maps—showing the main rail-links, national highways and important tourist centres and air-links have been incorporated Besides a political map. a few more charts indicating the achievements in the fields of industry and agriculture are also added

In the Appendices, a list containing Indian diplomats abroad and foreign diplomats in New Delhi is one of the fresh additions to this edition of the Reference Annual. 'Laws of Parliament' has been brought up to 1 October 1977 and 'Important Events' covers the developments right from January 1976 to the end of 1977.

For the convenience of readers seeking more details on specific topics, a bibliography is given at the end of the book

The text generally covers information up to September 1977 In some cases, however, events taking place later are also covered

# CONTENTS

## KEY TO NUMERATION

| | | |
|---|---|---|
| 1 lakh | = | One hundred thousand |
| 10 lakh | = | 1 million |
| 1 crore | = | 10 million |

# YEAR OF CHANGE

Nineteen hundred and seventy-seven was indeed India's year of change. The country witnessed protentous political developments growing out of the elections to Lok Sabha held in March. On the socio-economic plane the period was marked by striking departures in approach and action Doubts about durability of democracy in a developing country were set at rest. It came to be accepted that economic growth should not be measured merely in terms of gross national product It should mean a relentless struggle against destitution

Democracy Asserts

The year began with drama when the delayed elections to the Lok Sabha were announced unexpectedly by the then Government. The electioneering, as it gathered momentum, produced an awakening not anticipated before The fragmented opposition fused and fought the elections under a single banner—that of the newly-formed Janata Party. When the final tally was made, the Janata Party and its allies emerged victors with a convincing majority in Lok Sabha Thirty years of uninterrupted rule at the Centre by one political party came to an end on 22 March

The Janata Party based its election platform on two pledges liberty and bread Towards fulfilment of the first began the dismantling of the authoritarian set up; for the second—the larger objective—a comprehensive development strategy was worked out and incorporated in the 1978-83 Plan document

Emergency Revoked

With the Congress government revoking the internal emergency on 21 March, the extraordinary legal provisions lapsed Most of the political workers detained under the Maintenance of Internal Security Act were released The emergency powers obtaining from the Defence and Internal Security of India Act 1971 (under the external emergency declared in December 1971) were still available to the government. As a first step in a series of measures to restore democracy, the new Government ended the external emergency. With the revocation of both the emergencies, a whole set of laws and regulations restricting the free exercise of democratic rights became inoperative

Media Freedom

Priority was given to lift curbs on the media, imposed as a corollary to the 'emergency' Pre-censorship of the Press was done away with. The Prevention of Publications (Objectionable Matters) Act enacted during the 'emergency' which conferred sweeping executive control over freedom of expression, was revoked. The Parliamentary Proceedings (Protection of Publication) Act 1956, popularly known as Feroze Gandhi Act, which was repealed during the 'emergency', was restored The immunity enjoyed in reporting the deliberations of Parliament was thus handed back to the Press

In pursuance of Government's policy that All India Radio and Doordarshan should be free from Government control to ensure their functioning in a fair and objective manner, a Working Group was appointed with Shri B. G Verghese as the Chairman to examine the

functioning of All India Radio and Doordarshan and make recommendations regarding their future set up The Group was asked to examine *inter alia* the functional, financial and legal aspects of the proposal to give full autonomy to Akashvani and Doordarshan, consistent with accountability to Parliament. The report of the Group is now under consideration. Earlier, on 1 August, a White Paper on the misuse of mass media during the emergency based on the findings of an independent body was placed before Parliament

Democracy Restored

The unwinding of the emergency establishment was a complex exercise and had to be done on many fronts. The main targets of attack by the emergency regime were the political opposition, the judiciary and the Press. A month after the imposition of the 'emergency' the Constitution (39th Amendment) Bill was passed by both Houses of Parliament. Soon thereafter, another amendment of the country's basic law was effected without the press being able to disclose even the contents of the legislation and the public not being allowed to utter a word in dissent. The two Bills, after their enactment, became the 38th and 39th amendments respectively of the Constitution The first amendment deprived the Supreme Court and the High Courts of the power to examine certain actions taken in the name of the President, such as proclamation of a state of emergency (Article 352), promulgation of ordinances (Article 123) and imposition of President's rule on the constituent states of the Indian Union (Article 356) The other amendment destroyed the concept of equality before law which is the main pillar of the republican democracy India has opted for This amendment put the Prime Minister virtually above law, contrary to the spirit of the Constitution. Then came the abridging of the freedom of the Press All these measures have been revoked by the new Government in the first few months in office The arrest and detention without trial of thousands of political workers has also been undone

Inquiry into Excesses

The new Government has set up a number of Commissions under the Commissions of Inquiry Act to enquire into various matters agitating the public mind. The Enquiry Commissions, presided over by eminent legal personalities, are now at work. One of these, headed by Justice Shri J C. Shah, is enquiring into the alleged excesses committed during the emergency.

Rule of Law Upheld

Abrogation of the 42nd Amendment of the Constitution was among the priority items on the new Government's political agenda The Amendment placed several laws in the Ninth Schedule (outside the purview of the courts) affecting the citizens' cardinal 'equality-before-law' principle. This amendment was passed by Parliament in a matter of days—the Lok Sabha passed the Bill on 2 November 1976 and nine days later (11 November) the Rajya Sabha endorsed it

The new Government sponsored the Constitution (44th Amendment) Bill, seeking to restore to the courts their jurisdiction to consider the constitutional validity of any Central or State Law, which had been taken away during the 'emergency'. The Bill had the support of the Opposition in the Rajya Sabha where the Government fell short of the necessary two-thirds majority. This became the Constitution (43rd Amendment) Act. The more comprehensive Constitution (45th Amendment) Bill is now on the legislative anvil The Maintenance of

Internal Security Act, which was abused during the 'emergency', has since been repealed

At another level, recognising the importance of a constitutional opposition to the government, the leader of the Opposition was for the first time accorded the status and rank of a cabinet minister.

Broadcasts by Opposition Leaders

For the first time since Independence, parties outside the Government have been allowed the use of Government-controlled broadcasting media for election broadcasts. In the elections to the State Assemblies held in June 1977 and March 1978 all parties recognised by the Election Commission were allowed the facility on a basis of equality.

State Chief Ministers were invited to broadcast from the respective regional stations of AIR and Doordarshan on the completion of their one year in office. The leaders of opposition in state legislatures were also invited to broadcast

New Vistas of Development

Judged by the index of consumption standards, more than 200 million Indians are below the poverty line, largely because they do not have gainful employment. Thirty years of economic planning has by-passed them. The new Government has, therefore, embarked on a policy of massive employment especially in the villages under the new concept of continuous and long-term planning called the 'rolling plan'. Forty per cent of the Plan investment has been earmarked for rural development. Of the overall outlay of Rs 1,16,240 crores on the next Plan (1978-83), Rs 69,380 crores is to be in the public sector Consistent with the Government's declared policy to give a rural bias to development programmes, about Rs 9,000 crores have been allocated to irrigate an additional 17 million hectares of land in the next five years Schemes are also being prepared for integrated area development for full employment in 3,000 blocks in the country The Plan envisages the creation of 49 26 million man-years of employment by 1983. A commitment has been made to wipe out illiteracy through the National Adult Education Programme Persons in 15-35 age group numbering 100 million would be covered under this ambitious programme

Accent on Rural Industry

The industrial policy has also been re-oriented to reinforce rural development The policy is aimed at promoting rapid growth of small-scale industries in the rural areas, maximising employment and raising rural income levels As many as 800 items have been reserved for the small sector as against 180 in the past The focal point for industrial development will be the district headquarters rather than big cities and state capitals. In short, the thrust is to remove unemployment and under-employment, increase availability of basic goods and reduce income disparities

At the same time it is realised that allocation of resources by itself does not yield the desired result High priority has, therefore, been accorded to decentralisation of the development effort both in planning and implementation.

A National Committee headed by Shri Asoka Mehta, former Planning Minister, is presently studying the working of the Panchayats to suggest measures for grass-root level dispersal of resources and initiative Most of the states of the Union have already made considerable headway in promoting democratic decentralisation, referred to as Panchayati Raj The Asoka Mehta Committee is expected to suggest

further improvements in the decentralisation of the administ system. Proposals are also under consideration for a more ba distribution of tax revenues between the Centre and the States

New Deal for Minorities

A Minorities Commission has been established to functio watchdog of the interests of religious and linguistic minoritie the important minorities are represented on the commission. ( its functions will be to act as a clearing house for infor on minorities' problems in areas such as employment, housing educational opportunities. A similar commission for the Schedule Castes and Scheduled Tribes has also been set up.

Lokpal and Lokayukta

The problem of corruption, administrative high-handedness and redress of citizens' grievances had not received the urgent attention it deserved A bill seeking to appoint a Lokpal, Indian version of Ombudsman, and a Lokayukta, was passed by Lok Sabha as early as in 1969. However, it did not find a place in the Statute Book. Another bill introduced in the fifth Lok Sabha in 1971 also did not make much headway. The Janata government acted swiftly and introduced on 28 July the Lokpal Bill seeking to create an authority to enquire into charges of corruption and misuse of power against persons in high places including the Prime Minister and Chief Ministers of States This again is a departure from the past when the Prime Minister and the heads of Government in the States were sought to be kept out of its purview.

In short, the events of the year symbolise the new Government's efforts to effect a synthesis between democracy and development and to honour the commitment to both liberty and bread.

# 1 THE LAND AND THE PEOPLE

India is the second most populous and the seventh largest country in the world. Its population in mid-1976 was estimated at 60.95 crores. It has an area of 32,87,782[1] sq km. Among its states, Uttar Pradesh has the largest population—9.62 crores—and Madhya Pradesh the largest area—4,42,841 sq km.

Lying entirely in the northern hemisphere, the Mainland extends between latitudes 8°4′ and 37°6′ north and longitudes 68°7′ and 97°25′ east and measures about 3,214 km from north to south between the extreme latitudes and about 2,933 km from east to west between the extreme longitudes. It has a land frontier of 15,200 km and a coast line of about 6,100 km.

## THE PHYSICAL BACKGROUND

The Himalayas and other lofty mountains—Muztagh Ata, Aghil and Kunlun mountains to the north of Kashmir and Zaskar mountains to the east of Himachal Pradesh and north of Uttar Pradesh—form India's northern boundary, except in the Nepal region. She is adjoined in the north by China, Nepal and Bhutan. A series of mountain ranges in the east separate India from Burma. Also in the east, lies Bangladesh bounded by the Indian states of West Bengal, Assam, Meghalaya, Tripura and Mizoram. In the north-west, Afghanistan and Pakistan border on India. South of the Tropic of Cancer, the country tapers off into the Indian Ocean between the Arabian Sea on the west and the Bay of Bengal on the east. The Gulf of Mannar and the Palk Strait separate India from Sri Lanka. The Andaman and Nicobar Islands in the Bay of Bengal and Lakshadweep in the Arabian Sea are parts of the territory of India.

**Physical Features**

The Mainland comprises four well-defined regions, namely, the great mountain zone, the Indo-Gangetic Plains, the desert region and the Southern Peninsula.

The Himalayas comprise three almost parallel ranges interspersed with large plateaus and valleys some of which, like the Kashmir and Kulu Valleys, are fertile, extensive and of great scenic beauty. Some of the highest peaks in the world are found in these ranges. The high altitudes limit travel only to a few passes, notably the Jelep La and Nathu La on the main Indo-Tibet trade route through the Chumbi Valley north-east of Darjeeling and Shipki La in Sutlej Valley north-east of Kalpa (Kinnaur). The mountain wall extends over a distance of about 2,400 km with a varying depth of 240 to 320 km. In the east, between India and Burma and India and Bangladesh, the hill ranges are much lower. The Garo, Khasi, Jaintia and Naga hills running almost east-west join the chain of the Lushai and Arakan hills running north-south.

The Indo-Gangetic Plains, about 2,400 km long and 240 to 320 km broad, are formed by the basins of three distinct river systems, the Indus, the Ganga and the Brahmaputra. They are one of the world's greatest stretches of flat alluvium and also one of the most densely

---

[1]Provisional, as on 1 July 1971

poulated areas on earth. There is hardly any variation in relief. Between the Yamuna river at Delhi and the Bay of Bengal, nearly 1,600 km away, there is a drop of only 200 metres in elevation.

The desert region can be divided into two parts—the 'great desert' and the 'little desert'. The 'great desert' extends from the edge of the Rann of Kutch beyond the Luni river northward. The whole of Rajasthan-Sind frontier runs through this. The 'little desert' extends from the Luni river between Jaisalmer and Jodhpur up to the northern wastes. Between the great and little desert lies a zone of less absolutely sterile country, consisting of rocky land cut up by limestone ridges. Due to absence of surface water and very scanty rainfall, the region is almost absolutely sterile.

The Peninsular plateau is marked off from the Indo-Gangetic plains by a mass of mountain and hill ranges varying from 460 to 1,220 metres in height. Prominent among these are the Aravalli, Vindhya, Satpura, Maikala and Ajanta. The Peninsula is flanked on one side by the Eastern Ghats, where the average elevation is about 610 metres, and on the other by the Western Ghats, where it is generally from 915 to 1,220 metres, rising in places to over 2,440 metres. Between the Western Ghats and the Arabian Sea lies a narrow coastal strip, while between the Eastern Ghats and the Bay of Bengal there is a broader coastal area. The southern point of the plateau is formed by the Nilgiri Hills where the Eastern and Western Ghats meet. The Cardamom Hills lying beyond may be regarded as a continuation of the Western Ghats.

**Geological Structure**

The geological regions broadly follow the physical features and may be grouped into three well-defined regions: the Himalayas and their associated group of mountains, the Indo-Gangetic Plains and the ancient Peninsular Shield.

The Himalayan mountain belt to the north and the Naga-Lushai mountains in the east are regions of mountain building movement Much of the area, now presenting some of the most magnificent mountain scenery in the world, was under marine conditions over a period of about 60 crore years. In a series of mountain building movements commencing about seven crore years ago, the sediments and the basements of rocks in various configurations rose to great heights. The elements worked on these to produce the relief seen today.

The Indo-Gangetic Plains are a great alluvial tract that separate the Himalayas from the Peninsula to the south. The deposits of the tract belong to the latest chapter of the earth's history and conceal beneath them the southern fringes of the Himalayan formations and the northern fringes of the Peninsular formations. The thickness of the sedimentary cover in this tract exceeds 6,000 metres at places.

The Peninsula is a region of relative stability and rare seismic disturbances. Highly metamorphosed rocks of the earliest periods occur over more than half of its area, the rest being covered by the coal bearing Gondwana formations, and later sediments and lava flows belonging to the Deccan Trap formation.

**River Systems**

The rivers in India may be classified as: (i) Himalayan rivers, (ii) Deccan rivers, (iii) coastal rivers, and (iv) rivers of the inland drainage basin

The Himalayan rivers are generally snow-fed and have, therefore, continuous flow throughout the year. During the monsoon months,

the Himalayas receive very heavy rainfall and the rivers discharge the maximum amount of water causing frequent floods. The Deccan rivers are generally rain-fed and, therefore, fluctuate in volume. A large number of streams are non-perennial The coastal streams, specially of the west coast, are short in length and have limited catchment areas. Most of them are non-perennial. The streams of the inland drainage basin of western Rajasthan are few and far between. Most of them are of an ephemeral character. They drain towards the individual basins or salt lakes like the Sambhar or are lost in the sands, having no outlet to the sea. The Luni is the only river of this category that drains into the Rann of Kutch.

The Ganga basin is the largest in India receiving waters from an area which comprises about one-quarter of the total area of the country. Its boundaries are well defined by the Himalayas in the north and the Vindhya mountains in the south. The Ganga has two main headwaters in the Himalayas : the Bhagirathi and the Alaknanda, the former rising from the Gangotri glacier at Gaumukh and the latter from a glacial snout of the Alakapuri glacier. The Ganga is joined by a number of Himalayan rivers including the Yamuna, Ghaghra, Gandak and Kosi. The westernmost river of the Ganga system is the Yamuna, which rises in the Yamnotri glacier and joins the Ganga at Allahabad. Among the rivers flowing north from central India into the Yamuna or the Ganga, are the Chambal, Betwa and Son.

The second largest river basin in India is that of the Godavari. It covers an area which comprises about 10 per cent of the total area of India The Krishna basin is the second largest in Peninsular India. The Mahanadi flows through the third largest basin in the peninsula. The basins of the Narmada in the uplands of the Deccan and of the Cauvery in the far south are of about the same size, though of different character and shape.

Two other river systems, which are small but agriculturally important, are those of the Tapi in the north and the Penner in the south.

**Climate**

The climate of India may be broadly described as tropical monsoon type. There are four seasons in India . (i) winter season (December-February); (ii) hot weather season, summer (March-May); (iii) rainy season, south-western monsoon period (June-September); and (iv) post-monsoon period, known as north-east monsoon period in the south peninsula (October-December).

In India, rainfall is erratic and ill-distributed. It varies from place to place and year to year. However, there are four broad climatic regions based on rainfall. Practically the whole of Assam and its neighbourhood, the Western Ghats and the adjoining coastal strip and parts of the Himalayas are areas of very heavy rainfall with more than 2,000 mm of annual rainfall. Some places in the Khasi and Jaintia hills of Meghalaya receive the heaviest rainfall in the world Cherrapunji gets 11,419 mm of annual rainfall, the highest in the country. In contrast, Rajasthan, Kutch and the high Ladakh plateau of Kashmir extending westward to Gilgit are regions of low precipitation They get rainfall between 100 to 500 mm in a year. Between these areas at the extreme ends of the rainfall range, are two areas of moderately high and low rainfall ranging from 1,000 to 2,000 mm and 500 to 1,000 mm The former consists of a broad belt in the eastern part of the peninsula merging northward with the north India plains The latter runs from the Punjab plains across the Vindhya mountains

into the western part of the Deccan, extending further east in Karnataka and Andhra Pradesh.

While the rainy season in most parts of the country is from June to September, in Tamil Nadu it is during October-December.

Fauna

Possessing a tremendous diversity of climate and physical conditions, India has a great variety of fauna. There are about 500 species of mammals and 2,100 species of birds in the country. There also exist more than 30,000 different species of insects, apart from a great variety of fishes and reptiles.

The mammals include elephant, associated in India from time immemorial with mythology and the splendour of her regal pageantry, the gaur or Indian bison (the wild buffalo) and the great Indian rhinoceros, now confined to Assam and West Bengal. There are also several deer species like the rare Kashmir stag, swamp deer, the beautiful spotted deer, the unique musk deer, the brow-antlered deer (Thamin) now found in Manipur only, the tiny mouse deer, the Nilgai, the Chousingha (the four-horned antelope), the only four-horned creature in the world, and the Indian antelope or black buck

Among the animals of prey are the Indian lion, the only lion to be found in the world outside Africa. The tiger, which is the national animal, numbers less than 2,000. The alarming decline in its number in recent years has led to the launching of 'Project Tiger', a scheme financed by the Government of India to safeguard the tiger, its prey and its habitat, in nine selected areas. Among other cats are the leopard, the clouded leopard, the snow-leopard and various species of smaller cats.

Several species of monkeys and langurs are common. The only ape found in India, the hoolock, is confined to the rain forests of the eastern region. The lion-tailed macaque with a halo hair around the face is found in the south

Bird life in India is very rich and colourful. The peacock is the national bird. Several other birds like the pheasants, geese, ducks, mynahs, parakeets, pigeons, cranes, hornbills and sunbirds inhabit the forests and wet lands.

The rivers and lakes harbour crocodiles and gharials, the latter being the only representative of a crocodilian order in the world.

The great Himalayan range has a very interesting fauna and include wild sheep and goats, the markhor, the ibex, the serow and the takin The lesser panda and the snow-leopard are also to be found in the upper reaches of the mountain.

The Wild Life (Protection) Act, 1972, adopted by most of the states, governs the wild life conservation and protection of endangered species both inside and outside forest areas. Under this Act, trade in rare and endangered species has been banned and further restrictions have been imposed on the export of a number of animals and birds and their products.

There are at present seven national parks, 135 wild life sanctuaries and 24 zoological gardens in the country. State governments are given financial aid for improvement and development of national parks and sanctuaries.

Flora

With its wide range and climatic conditions—from the torrid to the arctic—India has a rich and varied vegetation, which few other countries of comparable size possess India can be divided into eight

distinct floristic regions, namely, Western Himalayas, Eastern Himalayas, Assam, Indus Plain, Ganga Plain, Deccan, Malabar and Andamans.

The Western Himalayan region extends from Kashmir to Kumaon. The temperate zone of the region is rich in forests of chirpine, other conifers and broad-leaved temperate trees Higher up, forests of deodar, blue pine, spruce and silver fir occur The alpine zone extends from the upper limit of the temperate zone to about 4,750 metres or even higher. The characteristic trees of this zone are the high level silver fir, silver birch and junipers

The Eastern Himalayan region extends from Sikkim eastwards and embraces Darjeeling, Kurseong and the adjacent tract The temperate zone of the region has forests of oaks, laurels, maples, rhododendrons, alder and birch; many conifers, junipers and dwarf willows also occur. The Assam region comprises the Brahmaputra and Surma valleys and the intervening hill ranges The vegetation is luxuriant with evergreen forests, occasional thick clumps of bamboos and tall grasses.

The Indus Plain region comprises the plains of Punjab, western Rajasthan and northern Gujarat This region is dry and hot and supports scanty natural vegetation

The Ganga Plain region covers the area from Aravalli ranges to Bengal and Orissa A greater part of the area is alluvial plain and is under cultivation for wheat, sugarcane and rice Only small areas support forests of widely differing types

The Deccan region comprises the entire tableland of the Indian peninsula, and supports vegetation of various kinds from scrub jungles to mixed deciduous forests

The Malabar region covers the excessively humid belt of mountain country running parallel to the west coast of the peninsula. This region, besides being rich in forest vegetation, produces important commercial crops such as coconut, betelnut, pepper, coffee and tea Also, rubber, cashewnut and eucalyptus have been successfully introduced in some parts of this region

The Andaman region comprises the Andaman and Nicobar group of islands It abounds in evergreen, semi-evergreen, mangrove, beach and diluvial forests

The Himalayas (from Kashmir to Arunachal Pradesh through Nepal, Sikkim and Bhutan), Meghalaya, Nagaland and the Deccan Peninsula are rich in endemic flora, i e., a large number of plants found in these regions, originated three millions of years ago, are still restricted to these endemic centres and are not found elsewhere in the world except as introductions

Because of the destruction of forests for agricultural, industrial and urban development, several Indian plants are facing extinction Samples of some of these rare plants are being preserved in botanical gardens and national parks. Collections of dried samples of these plants are preserved in the Central National Herbarium, Calcutta, the regional herbaria of the Botanical Survey of India and in other research and teaching institutions of the country.

## DEMOGRAPHIC BACKGROUND

Census

The first all-India census, though not synchronously taken, was completed in 1872 Since 1881, census in India has been taken regularly every ten years The latest in 1971 marked the completion of 100

years of decennial census-taking in the country. The enumeration was conducted between 10 March and 3 April 1971 (with reference date as the sunrise of 1 April) except in certain areas where it was taken between September 1970 and February 1971. The highlights of the 1971 census are given at the end of this chapter.

*Total Population*

According to the 1971 census, the total population of India was 54,81,59,652. As compared to the 1961 census, it showed an increase of 24 8 per cent. The main cause of this increase in population is the fall in death rate brought about by better health conditions, effective control of epidemics, efficient handling of famine conditions and general improvement and economic development. The population has gone up despite a small fall in the birth rate.

Table 1.1 shows population growth since 1901.

*Mid-1976 Population*

The population of India as on 1 March 1977 was 62 58 crores. The estimated mid-1976 population of the various states, as on 1 July 1976, was as follows (figures in crores): Andhra Pradesh 4.79, Assam 1.70, Bihar 6.18, Gujarat 3.03 Haryana 1.12, Himachal

**TABLE 1.2**
**AREA AND DENSITY OF POPULATION**

| State/Union Territory | Area (sq km)[1] | Population 1971 | Density of population per sq km[3] |
|---|---|---|---|
| **INDIA** | **32,87,782[2]** | **54,81,59,652** | **177[3]** |
| *States* | | | |
| Andhra Pradesh | 2,76,814 | 4,35,02,708 | 157 |
| Assam | 78,523 | 1,46,25,152 | 186 |
| Bihar | 1,73,876 | 5,63,53,369 | 324 |
| Gujarat | 1,95,984 | 2,66,97,475 | 136 |
| Haryana | 44,222 | 1,00,36,808 | 227 |
| Himachal Pradesh | 55,673 | 34,60,434 | 62 |
| Jammu and Kashmir | 2,22,236[2] | 46,16,632 | n.a. |
| Karnataka | 1,91,773 | 2,92,99,014 | 153 |
| Kerala | 38,864 | 2,13,47,375 | 549 |
| Madhya Pradesh | 4,42,841 | 4,16,54,119 | 94 |
| Maharashtra | 3,07,762 | 5,04,12,235 | 164 |
| Manipur | 22,356 | 10,72,753 | 48 |
| Meghalaya | 22,489 | 10,11,699 | 45 |
| Nagaland | 16,527 | 5,16,449 | 31 |
| Orissa | 1,55,782 | 2,19,44,615 | 141 |
| Punjab | 50,362 | 1,35,51,060 | 269 |
| Rajasthan | 3,42,214 | 2,57,65,806 | 75 |
| Sikkim | 7,299 | 2,09,843 | 29 |
| Tamil Nadu | 1,30,069 | 4,11,99,168 | 317 |
| Tripura | 10,477 | 15,56,342 | 149 |
| Uttar Pradesh | 2,94,413 | 8,83,41,144 | 300 |
| West Bengal | 87,853 | 4,43,12,011 | 504 |
| *Union Territories* | | | |
| Andaman and Nicobar Islands | 8,293[4] | 1,15,133 | 14 |
| Arunachal Pradesh | 83,578 | 4,67,511 | 6 |
| Chandigarh | 114 | 2,57,251 | 2,257 |
| Dadra and Nagar Haveli | 491 | 74,170 | 151 |
| Delhi | 1,485 | 40,65,698 | 2,738 |
| Goa, Daman and Diu | 3,813 | 8,57,771 | 225 |
| Lakshadweep | 32 | 31,810 | 994 |
| Mizoram | 21,087 | 3,32,390 | 16 |
| Pondicherry | 480 | 4,71,707 | 983 |

[1]Provisional, as on 1 July 1971. na —Not available.
[2]Includes area under illegal occupation of Pakistan and China
[3]Density worked out after excluding population and area figures of Jammu and Kashmir.
[4]As on 1 January 1966.

TABLE 1 1

GROWTH OF POPULATION (1901-1971)

| State/Union Territory | 1901 | 1911 | 1921 | 1931 | 1941 | 1951 | 1961 | 1971 |
|---|---|---|---|---|---|---|---|---|
| **INDIA** | **23,83,96,327** | **25,20,93,390** | **25,13,21,213** | **27,89,77,238** | **31,86,60,580** | **36,10,88,090** | **43,92,34,771** | **54,81,59,652** |
| *States* | | | | | | | | |
| Andhra Pradesh | 1,90,65,921 | 2,14,47,412 | 2,14,20,448 | 2,42,03,573 | 2,72,89,340 | 3,11,15,259 | 3,59,83,447 | 4,35,02,708 |
| Assam | 32,89,680 | 38,48,617 | 46,36,980 | 55,60,371 | 66,94,790 | 80,28,856 | 1,08,37,329 | 1,46,25,152 |
| Bihar | 2,73,11,865 | 2,83,14,281 | 2,81,26,675 | 3,13,47,108 | 3,51,70,840 | 3,87,82,271 | 4,64,47,457 | 5,63,53,369 |
| Gujarat | 90,94,748 | 98,03,587 | 1,01,74,989 | 1,14,89,828 | 1,37,01,551 | 1,62,62,657 | 2,06,33,350 | 2,66,97,475 |
| Haryana | 46,23,079 | 41,74,690 | 42,55,905 | 45,59,931 | 52,72,845 | 56,73,614 | 75,90,543 | 1,00,36,808 |
| Himachal Pradesh | 19,20,294 | 18,96,944 | 19,28,206 | 20,29,113 | 22.63.245 | 23,85,981 | 28,12,463 | 34,60,434 |
| Jammu & Kashmir[1] | 21,39,362 | 22,92,535 | 24,24,359 | 26,70,208 | 29,46,728 | 32,53,852 | 35,60,976 | 46,16,632 |
| Karnataka | 1,30,54,754 | 1,35,25,251 | 1,33,77,599 | 1,46,32,992 | 1,62,55,368 | 1,94,01,956 | 2,35,86,772 | 2,92,99,014 |
| Kerala | 63,96,262 | 71,47,673 | 78,02,127 | 95,07,050 | 1,10,31,541 | 1,35,49,118 | 1 69,03,715 | 2,13,47,375 |
| Madhya Pradesh | 1,68,60,768 | 1,94,40,965 | 1,91,71,750 | 2,13,55,657 | 2,39,90,608 | 2,60,71,637 | 3,23,72,408 | 4,16,54,119 |
| Maharashtra | 1,93,91,643 | 2,14,74,523 | 2,08,49,666 | 2,39,59,300 | 2,68,32,758 | 3,20,02,564 | 3,95,53,718 | 5,04,12,235 |
| Manipur | 2,84,465 | 3,46,222 | 3,84,016 | 4,45,606 | 5,12,069 | 5,77,635 | 7,80,037 | 10,72,753 |
| Meghalaya | 3,40,524 | 3,94,005 | 4,22,403 | 4,80,837 | 5,55,820 | 6,05,674 | 7,69,380 | 10,11,699 |
| Nagaland | 1,01,550 | 1,49,038 | 1,58,801 | 1,78,844 | 1,89,641 | 2,12,975 | 3,69,200 | 5,16,449 |
| Orissa | 1,03,02,917 | 1,13,78,875 | 1,11,58,586 | 1,24,91,056 | 1,37,67,988 | 1,46,45,946 | 1,75,48,846 | 2,19,44,615 |
| Punjab | 75,44,790 | 67,31,510 | 71,52,811 | 80,12,325 | 96,00,236 | 91,60,500 | 1,11,35,069 | 1,35,51,060 |
| Rajasthan | 1,02,94,090 | 1,09,83,509 | 1,02,92,648 | 1,17,47,974 | 1,38,63,859 | 1,59,70,774 | 2,01,55,602 | 2,57,65,806 |
| Sikkim | 59,014 | 87,920 | 81,721 | 1,09,808 | 1,21,520 | 1,37,725 | 1,62,189 | 2,09,843 |
| Tamil Nadu | 1,92,52,630 | 2,09,02,616 | 2,16,28,518 | 2,34,72,099 | 2,62,67,507 | 3,01,19,047 | 3,36,86,953 | 4,11,99,168 |
| Tripura | 1,73,325 | 2,29,613 | 3,04,437 | 382,450 | 5,13,010 | 6,39,029 | 11,42,005 | 15,56,342 |
| Uttar Pradesh | 4,86,27,655 | 4,81,54,908 | 4,66,72,398 | 4,97,79,538 | 5,65,35,154 | 6,32,19,655 | 7,37,54,554 | 8,83,41,144 |
| West Bengal | 1,69,40,088 | 1,79,98,769 | 1,74,74,348 | 1,88,97,036 | 2,32,29,552 | 2,62,99,980 | 3,49,26,279 | 4,43,12,011 |
| *Union Territories*[2] | | | | | | | | |
| Andaman & Nicobar Islands | 24,649 | 26,459 | 27,086 | 29,463 | 33,768 | 30,971 | 63,548 | 1,15,133 |
| Arunachal Pradesh | — | — | — | — | — | — | 3,36,558 | 4,67,511 |
| Chandigarh | 21,967 | 18,437 | 18,133 | 19,783 | 22,574 | 24,261 | 1,19,881 | 2,57,251 |
| Dadra & Nagar Haveli | 24,280 | 29,020 | 31,048 | 38,260 | 40,441 | 41,532 | 57,963 | 74,170 |
| Delhi | 4,05,819 | 4,13,851 | 4,88,452 | 6,36,246 | 9,17,939 | 17,44,072 | 26,58,612 | 40,65,698 |
| Goa, Daman & Diu | 5,07,518 | 5,19,222 | 5,00,904 | 5,41,710 | 5,83,736 | 5,96,059 | 6,26,667 | 8,57,771 |
| Lakshadweep | 13,882 | 14,555 | 13,637 | 16,040 | 18,355 | 21,035 | 24,108 | 31,810 |
| Mizoram | 82,434 | 91,204 | 98,406 | 1,24,404 | 1,52,786 | 1,96,202 | 2,66,063 | 3,32,390 |
| Pondicherry | 2,46,354 | 2,57,179 | 2,44,156 | 2,58,628 | 2,85,011 | 3,17,253 | 3,69,079 | 4,71,707 |

[1]The population of Jammu and Kashmir for 1951 has been taken to be the arithmetic mean of 1941 and 1961 population The population of the state for1941 and earlier censuses has been adjusted to exclude that of areas currently under the illegal occupation of Pakistan and China. Later figures exclude the population of such areas

[2]Population figures for Goa, Daman & Diu, and Dadra and Nagar Haveli for 1901, 1911, 1941 and 1951 have been assumed to be the same as in 1900, 1910, 1940 and 1950 respectively Similarly, figures for Pondicherry for 1951 have been assumed to be the same as in 1948 The 1961 figures for Goa, Daman and Diu relate to the census taken by the Portuguese authorities with reference date as 15 December 1960; figures for Dadra and Nagar Haveli relate to 1962 census with reference date as 1 March 1962

Pradesh 0 37, Jammu & Kashmir 0 51, Karnataka 3.24, Kerala 2.40, Madhya Pradesh 4 72, Maharashtra 5 63, Manipur 0 12, Meghalaya 0 11, Nagaland 0 06, Orissa 2 44, Punjab 1.50, Rajasthan 2.90, Sikkim 0 02, Tamil Nadu 4 54, Tripura 0.17, Uttar Pradesh 9.62, West Bengal 4 98, Andaman & Nicobar Islands 0 01, Arunachal Pradesh 0 05, Chandigarh 0.03, Dadra and Nagar Haveli 0 008, Delhi 0 51, Goa, Daman & Diu 0 10, Lakshadweep 0 004, Mizoram 0 04 and Pondicherry 0 05

*Density*

The average density of population per sq km in 1971 was 177. It varied considerably from state to state, being as high as 549 in Kerala and as low as 29 in Sikkim and 6 in Arunachal Pradesh The area and density and population in various states and union territories are shown in table 1.2.

The density of population and the percentage increase of population between 1921 and 1971 are as follows :

**TABLE 1 3**
DENSITY AND INCREASE OF POPULATION

| Year | Density per sq km | Decade | Percentage increase in population |
|---|---|---|---|
| 1921 | 81 | | |
| 1931 | 90 | 1921-31 | 11 0 |
| 1941 | 103 | 1931-41 | 14·2 |
| 1951 | 117 | 1941-51 | 13·3 |
| 1961 | 142 | 1951-61 | 21 5 |
| 1971 | 177 | 1961-71 | 24 8 |

*Note* Density worked out after excluding the population and area figures of Jammu and Kashmir

Birth and Death Rates and Life Expectancy

Estimates of birth and death rates and life expectancy at decennial censuses since 1921 are given in the table below There has been a steady increase in life expectancy during the sucessive decades.

**TABLE 1 4**
BIRTH AND DEATH RATES AND LIFE EXPECTANCY

| Decade | Per thousand | | Expectation of life at birth | |
|---|---|---|---|---|
| | Birth rate (estimated) | Death rate (estimated) | Males | Females |
| 1921-30 | 46 4 | 36·3 | 26 91 | 26 56 |
| 1931-40[1] | 45 2 | 31 2 | 32 09 | 31·37 |
| 1941-50 | 39 9 | 27 4 | 32 45 | 31·66 |
| 1951-60 | 41 7 | 22·8 | 41 90 | 40 60 |
| 1961-70 | 41 1[2] | 18 9[2] | 47 10[2] | 45 60[2] |

[1]Unofficial estimates
[2]Provisional, based on one per cent sample data

Table 1 5 shows life expectancy at various stages for the three decades 1941—50, 1951—60 and 1961—70

**TABLE 1 5**
EXPECTATION OF LIFE AT VARIOUS STAGES

| | Expectation of life | | | | | |
|---|---|---|---|---|---|---|
| | 1941-50 | | 1951-60[1] | | 1961-70[2] | |
| | Males | Females | Males | Females | Males | Females |
| 0 | 32·5 | 31 7 | 41 9 | 40 6 | 47·1 | 45 6 |
| 10 | 40 0 | 39 5 | 45 2 | 43 8 | 49 0 | 48 1 |
| 20 | 33 0 | 32 9 | 37 0 | 35 8 | 40 2 | 39 7 |
| 30 | 26 6 | 26 2 | 29 0 | 27 9 | 31 9 | 31 7 |
| 40 | 20 5 | 21·1 | 22 1 | 22 4 | 24 7 | 24 7 |
| 50 | 14 9 | 16 2 | 16 5 | 17 5 | 18 3 | 18 9 |
| 60 | 10 1 | 11 3 | 11 8 | 13 0 | 13 0 | 13 4 |

[1]Census of India 1961
[2]Provisional, based on one per cent sample data

Age Structure

The following table shows the percentage of different age groups to the total population according to the 1971 census.

TABLE 1 6
AGE STRUCTURE (1971)

| Age group | 0 to 14 | 15 to 19 | 20 to 24 | 25 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60+ |
|---|---|---|---|---|---|---|---|---|
| Percentage of the total population | 42 0 | 8 7 | 7 9 | 7 4 | 12 6 | 9 3 | 6·1 | 6 0 |

Sex Ratio

According to the 1971 census, there are 28 4 crore males and 26 4 crore females in India. Thus for every thousand males, India has 930 females, the number declining from 972 in 1901 and 950 in 1931 Only Kerala among the states (1,016) and Dadra and Nagar Haveli among the union territories (1,007) have more women than men The lowest female ratio among the states is in Sikkim (863) Among the union territories, the lowest female ratio is in Andaman and Nicobar Islands where it is 644

## THE SOCIAL PATTERN

The break-up of the population according to age and marital status is shown in table 1.7

TABLE 1 7
MARITAL STATUS (1971)[1]

(in hundreds)

| Marital status | Males | Females | Total |
|---|---|---|---|
| Never married | 15,67,268 | 11,92,695 | 27,59,963 |
| Married | 11,79,059 | 12,05,244 | 23 84,303 |
| Widowed | 83,937 | 2,32,233 | 3,16,170 |
| Divorced or separated | 5,370 | 8,738 | 14,108 |
| Unspecified status | 3,732 | 1,222 | 4,954 |
| Total population | 28,39,366 | 26,40,132 | 54,79,498 |

[1]Estimated from one per cent sample data which has been adjusted pro-rata sex-wise so as to conform to actual enumerated population Excludes Sikkim

Religions

Table 1 8 shows the population of the major religious communities in various states and union territories

The following table shows the population of major religious communities along with their percentage to total population and the percentage increase during the decennium 1961—71

TABLE 1 9
MAJOR RELIGIOUS COMMUNITIES AND THEIR PERCENTAGE

| Religious community | 1961[1] Population | 1961[1] Percentage to total population | 1971 Population | 1971 Percentage to total population | Percentage increase 1961-71[3] |
|---|---|---|---|---|---|
| Hindus | 36,65,01,267 | 83 50 | 45,34,36,630 | 82·72 | 23 69 |
| Muslims | 4,69,39,791 | 10 70 | 6,14,18,269 | 11 20 | 30 84 |
| Christians | 1,07,26,373 | 2 44 | 1,42,25,045 | 2 60 | 32 58 |
| Sikhs | 78,45,170 | 1 79 | 1,03,78,891 | 1 89 | 32 28 |
| Buddhists | 32,50,227 | 0 74 | 38,74,942 | 0 71 | 17 33 |
| Jains | 20,27,267 | 0 46 | 26,04,837 | 0 48 | 28 49 |
| Others[2] | 16,08,118 | 0 37 | 22,21,038 | 0 40 | 19 62 |
| Total | 43,92,34,771 | 100 00 | 54,81,59,652 | 100 00 | 24 80 |

[1]1961 figures exclude the figures for Arunachal Pradesh as the all-India census schedule was not canvassed throughout that Pradesh then

[2]Includes figures for 'religion not stated'

[3]Percentage increase (1961-71) of each religion has been calculated on comparative area figures of 1961-71.

## TABLE 1.8

### State-wise Population of Major Religious Communities (1971)

| State/Union Territory | Hindus | Muslims | Christians | Sikhs | Budhists | Jains | Other religions and persuasions | Religion not stated |
|---|---|---|---|---|---|---|---|---|
| **INDIA** | **45,34,36,630** | **6,14,18,269** | **1,42,25,045** | **1,03,78,891** | **38,74,942** | **26,04,837** | **21,84,955** | **36,083** |
| *States* | | | | | | | | |
| Andhra Pradesh | 3,81,19,279 | 35,20,166 | 18,23,436 | 12,591 | 10,035 | 16,108 | 995 | 98 |
| Assam | 1,06,04,618 | 35,92,124 | 3,81,010 | 11,920 | 22,565 | 12,914 | 1 | — |
| Bihar | 4,70,31,801 | 75,94,173 | 6,58,717 | 61,520 | 4,806 | 25,185 | 9,76,997 | 170 |
| Gujarat | 2,38,35,471 | 22,49,055 | 1,09,341 | 18,233 | 5,469 | 4,51,578 | 18,781 | 9,547 |
| Haryana | 89,56,310 | 4,05,723 | 9,802 | 6,31,048 | 845 | 31,173 | 5 | 1,902 |
| Himachal Pradesh | 33,24,627 | 50,327 | 3,556 | 44,914 | 35,937 | 626 | 319 | 128 |
| Jammu & Kashmir | 14,04,292 | 30,40,129 | 7,182 | 1,05,873 | 57,956 | 1,150 | 8 | 42 |
| Karnataka | 2,53,32,388 | 31,13,298 | 6,13,026 | 6,803 | 14,139 | 2,18,682 | 380 | 91 |
| Kerala | 1,26,83,277 | 41,62,718 | 44,94,089 | 1,284 | 605 | 3,336 | 562 | 1,504 |
| Madhya Pradesh | 3,90,24,162 | 18,15,685 | 2,86,072 | 98,973 | 81,823 | 3,45,211 | 836 | 1,357 |
| Maharashtra | 4,13,07,287 | 42,33,023 | 7,17,174 | 1,01,762 | 32,64,223 | 7,03,664 | 80,023 | 5,079 |
| Manipur | 6,32,597 | 70,969 | 2,79,243 | 1,028 | 495 | 1,408 | 83,167 | 3,846 |
| Meghalaya | 1,87,140 | 26,347 | 4,75,267 | 1,262 | 1,878 | 268 | 3,18,168 | 1,369 |
| Nagaland | 59,031 | 2,966 | 3,44,798 | 687 | 179 | 627 | 1,08,159 | 2 |
| Orissa | 2,11,21,056 | 3,26,507 | 3,78,888 | 10,204 | 8,462 | 6,521 | 91,859 | 1,118 |
| Punjab | 50,87,235 | 1,14,447 | 1,62,202 | 81,59,972 | 1,374 | 21,383 | 355 | 4,092 |
| Rajasthan | 2,30,93,895 | 17,78,275 | 30,202 | 3,41,182 | 3,642 | 5,13,548 | 4,339 | 723 |
| Sikkim | 1,44,544 | 335 | 1,663 | 94 | 62,617 | 191 | 399 | — |
| Tamil Nadu | 3,66,74,150 | 21,03,899 | 23,67,749 | 4,355 | 1,148 | 41,097 | 6,080 | 690 |
| Tripura | 13,93,689 | 1,03,962 | 15,713 | 318 | 42,285 | 375 | — | — |
| Uttar Pradesh | 7,39,97,597 | 1,36,76,533 | 1,31,810 | 3,69,672 | 39,639 | 1,24,728 | 423 | 742 |
| West Bengal | 3,46,11,864 | 90,64,338 | 2,51,752 | 35,084 | 1,21,504 | 32,203 | 1,94,126 | 1,140 |
| *Union Territories* | | | | | | | | |
| Andaman & Nicobar Islands | 70,134 | 11,655 | 30,342 | 865 | 103 | 14 | 1,264 | 756 |
| Arunachal Pradesh | 1,02,832 | 842 | 3,684 | 1,255 | 61,400 | 39 | 2,96,674 | 785 |
| Chandigarh | 1,84,395 | 3,720 | 2,504 | 65,472 | 92 | 1,016 | 47 | 5 |
| Dadra & Nagar Haveli | 71,075 | 740 | 1,918 | 3 | 73 | 303 | 21 | 37 |
| Delhi | 34,07,835 | 2,63,019 | 43,720 | 2,91,123 | 8,720 | 50,513 | 527 | 241 |
| Goa, Daman & Diu | 5,50,482 | 32,250 | 2,72,509 | 885 | 260 | 556 | 269 | 560 |
| Lakshadweep | 1,545 | 30,019 | 239 | 4 | — | — | 3 | — |
| Mizoram | 21,229 | 1,882 | 2,86,141 | 427 | 22,647 | 3 | 61 | — |
| Pondicherry | 4,00,793 | 29,143 | 41,296 | 51 | 21 | 273 | 107 | 59 |

*Languages*

A number of languages and dialects are spoken in India. Of these, 15 languages have been specified in the Eighth Schedule of the Constitution. These are: Assamese, Bengali, Gujarati, Hindi, Kannada, Kashmiri, Malayalam, Marathi, Oriya, Punjabi, Sanskrit, Sindhi, Tamil, Telugu and Urdu.

Rural and Urban Population

Of the 54.82 crore people, who constituted the 1971 population of India, 43.90 crores or about 80 per cent live in villages and 10.92 crores or 20 per cent in cities and towns. There has been, between 1921 and 1971, a steady shift towards urbanisation as shown below:

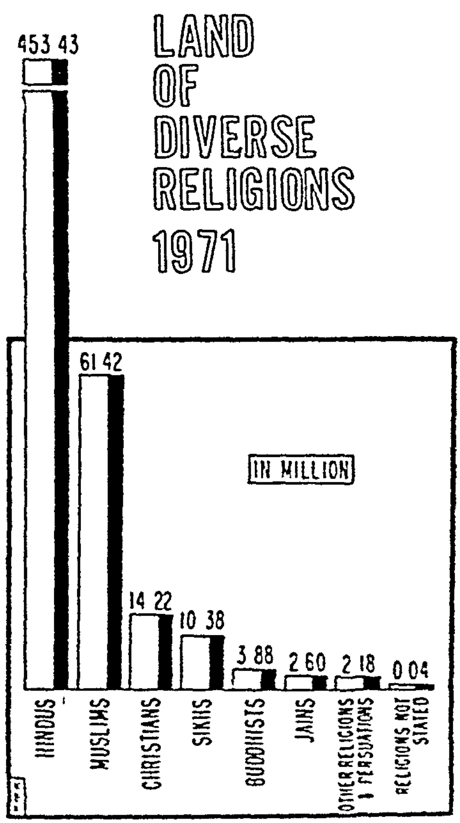
**TABLE 1.10**
RURAL AND URBAN POPULATION

| Percentage of total population | 1921 | 1931 | 1941 | 1951 | 1961 | 1971 |
|---|---|---|---|---|---|---|
| Rural | 88 8 | 88 0 | 86 1 | 82 7 | 82 0 | 80 1 |
| Urban | 11 2 | 12 0 | 13 9 | 17·3 | 18 0 | 19 9 |

Towns and Villages

According to the 1971 census, there are 5,75,936 villages and 2,643 towns/town agglomerations. Of the villages, 3,18,633 have a population of less than 500 and 6,332 a population of 5,000 and over.

Of the towns and town agglomerations, 148 have a population of over one lakh each (see map). Of these, nine have a population of more than 10 lakhs These are: Calcutta U.A.[1] (70,31,382), Greater Bombay (59,70,575), Delhi U A. (36,47,023), Madras (31,69,930), Hyderabad U.A (17,96,339), Ahmedabad U.A. (17,41,522), Bangalore U A. (16,53,779), Kanpur U.A. (12,75,242), Pune U.A. (11,35,034), (see tables 1.12 and 1.13).




[1] U A—Urban agglomeration.

TABLE 1·11

STATE-WISE DISTRIBUTION OF VILLAGES ACCORDING TO POPULATION (1971)

| State/Union Territory | 10,000 and over | 5,000 to 9,999 | 2,000 to 4,999 | 1,000 to 1,999 | 500 to 999 | Less than 500 | Total |
|---|---|---|---|---|---|---|---|
| INDIA .. | 1,358 | 4,974 | 36,005 | 81,973 | 1,32,990 | 3,18,633 | 5,75,936[1] |
| *States* | | | | | | | |
| Andhra Pradesh | 80 | 724 | 4,833 | 6,411 | 5,438 | 9,735 | 27,221 |
| Assam[2] | 1 | 29 | 788 | 3,061 | 5,936 | 12,359 | 22,224 |
| Bihar | 86 | 675 | 4,337 | 9,313 | 15,232 | 37,923 | 67,566 |
| Gujarat | 17 | 248 | 1,968 | 4,395 | 5,242 | 6,405 | 18,275 |
| Haryana | 8 | 148 | 975 | 1,673 | 1,909 | 2,018 | 6,731 |
| Himachal Pradesh | — | 2 | 50 | 260 | 861 | 15,743 | 16,916 |
| Jammu & Kashmir | — | 9 | 276 | 764 | 1,556 | 3,948 | 6,503 |
| Karnataka | 9 | 252 | 2,014 | 4,556 | 7,082 | 12,913 | 26,826 |
| Kerala | 808 | 316 | 122 | 16 | 2 | 4 | 1,268 |
| Madhya Pradesh | 6 | 87 | 1,292 | 5,952 | 16,516 | 47,030 | 70,883 |
| Maharashtra | 75 | 492 | 3,102 | 7,439 | 10,529 | 14,141 | 35,778 |
| Manipur[3] | — | 8 | 79 | 172 | 237 | 1,450 | 1,949 |
| Meghalaya | — | — | 7 | 54 | 237 | 4,285 | 4,583 |
| Nagaland | — | 1 | 17 | 114 | 169 | 659 | 960 |
| Orissa .. | 2 | 22 | 830 | 3,546 | 8,821 | 33,771 | 46,992 |
| Punjab | 2 | 79 | 940 | 2,392 | 3,577 | 5,198 | 12,188 |
| Rajasthan | 10 | 165 | 1,524 | 4,008 | 7,817 | 19,781 | 33,305 |
| Sikkim | — | — | 7 | 63 | 114 | 31 | 215 |
| Tamil Nadu .. | 140 | 752 | 3,902 | 4,547 | 3,425 | 2,969 | 15,735 |
| Tripura | — | 3 | 65 | 222 | 473 | 3,964 | 4,727 |
| Uttar Pradesh | 58 | 515 | 5,400 | 16,081 | 28,295 | 62,212 | 1,12,561 |
| West Bengal .. | 52 | 412 | 3,342 | 6,622 | 9,085 | 18,561 | 38,074 |
| *Union Territories* | | | | | | | |
| Andaman & Nicobar Islands | — | — | 1 | 19 | 32 | 338 | 390 |
| Arunachal Pradesh .. | — | — | 10 | 38 | 107 | 2,818 | 2,973 |
| Chandigarh | — | 1 | — | 7 | 10 | 8 | 26 |
| Dadra & Nagar Haveli | — | — | 5 | 26 | 18 | 23 | 72 |
| Delhi | 2 | 6 | 60 | 79 | 53 | 43 | 243 |
| Goa, Daman & Diu | 2 | 23 | 77 | 85 | 82 | 140 | 409 |
| Lakshadweep .. | — | 2 | 6 | 1 | — | 1 | 10 |
| Pondicherry | — | 3 | 26 | 57 | 85 | 162 | 333 |

[1]Includes three villages of Manipur for which details are not available.
[2]Includes Mizo district, now constituted as union territory of Mizoram.
[3]Separate population of three villages not available

TABLE 1 12

DISTRIBUTION OF TOWNS/TOWN AGGLOMERATIONS[1] ACCORDING TO POPULATION (1971)

| State/Union Territory | 1,00,000 and over | 50,000 to 99,999 | 20,000 to 49,999 | 10,000 to 19,999 | 5,000 to 9,999 | Less than 5,000 | Total |
|---|---|---|---|---|---|---|---|
| **INDIA** . | **148** | **183** | **582** | **875** | **678** | **177**[2] | **2,643**[2] |
| *States* | | | | | | | |
| Andhra Pradesh .. | 13 | 17 | 59 | 76 | 38 | 4 | 207 |
| Assam . | 1 | 5 | 9 | 24 | 22 | 8 | 69 |
| Bihar . | 11 | 9 | 42 | 57 | 35 | 7 | 161 |
| Gujarat | 8 | 17 | 37 | 66 | 67 | 5 | 200 |
| Haryana . | 2 | 9 | 14 | 15 | 20 | 5 | 65 |
| Himachal Pradesh . | — | 1 | 1 | 5 | 7 | 21 | 35 |
| Jammu & Kashmir | 2 | — | 3 | 3 | 15 | 20 | 43 |
| Karnataka | 12 | 9 | 38 | 99 | 46 | 26 | 230 |
| Kerala | 5 | 7 | 40 | 25 | 9 | 2 | 88 |
| Madhya Pradesh . | 11 | 11 | 41 | 72 | 90 | 7 | 232 |
| Maharashtra . | 18 | 16 | 61 | 90 | 58 | 14 | 257 |
| Manipur | 1 | — | — | — | 4 | 3 | 8 |
| Meghalaya . | 1 | — | — | 1 | 1 | — | 3 |
| Nagaland . | — | — | 1 | 2 | — | — | 3 |
| Orissa | 5 | 1 | 19 | 21 | 30 | 2 | 78 |
| Punjab . | 4 | 8 | 22 | 32 | 30 | 10 | 106 |
| Rajasthan . . | 7 | 7 | 31 | 64 | 38 | 4 | 151 |
| Sikkim . | — | — | — | 2 | — | 5 | 7 |
| Tamil Nadu . | 16 | 27 | 57 | 86 | 44 | 11 | 241 |
| Tripura . | 1 | — | — | 4 | 1 | — | 6 |
| Uttar Pradesh . | 22 | 20 | 67 | 91 | 80 | 13[2] | 293[2] |
| West Bengal . | 5 | 18 | 34 | 39 | 35 | 3 | 134 |
| *Union Territories* | | | | | | | |
| Andaman & Nicobar Islands | — | — | 1 | — | — | — | 1 |
| Arunachal Pradesh | — | — | — | — | 1 | 3 | 4 |
| Chandigarh . . | 1 | — | — | — | — | — | 1 |
| Dadra & Nagar Haveli . | — | — | . | — | — | — | — |
| Delhi . . | 1 | — | — | — | — | — | 1 |
| Goa, Daman & Diu | — | 1 | 3 | 1 | 4 | 4 | 13 |
| Lakshadweep . | — | — | — | — | — | — | — |
| Mizoram | — | — | 1 | — | 1 | — | 2 |
| Pondicherry . . | 1 | — | 1 | — | 2 | | 4 |

[1]In certain clusters the urban area is not limited only to the notified boundary of any one or two places but embraces satellite towns and cities and industrial towns or settlements close to this urban area, being outgrowths of such towns/cities Such well-formed clusters are treated urban agglomerations, the determinant being a continuous urban spread including the outgrowth(s)

[2]Includes the town of Badrinathpuri which was snow bound and uninhabitated at the time of Census.

## 1971 CENSUS HIGHLIGHTS

| | | |
|---|---|---|
| Population of India (crores) | Persons | 54·8 |
| | Males | 28·4 |
| | Females | 26 4 |
| Life expectancy 1961-70 | Males | 47 1 year |
| | Females | 45·6 year |
| Birth rate 1961-70 (per thousand) | | 41·1 |
| Death rate 1961-70 (per thousand) | | 18·9 |
| Decennial growth rate 1961-71 (per cent) | 24 8 | |
| Density of population (per sq km[1]) | 177 | |
| Sex ratio (females per 1,000 males) | 930 | |
| Literacy rate (including age group 0-4) (per cent) | Persons | 29 45 |
| | Males | 39 45 |
| | Females | 18·69 |
| Proportion of urban population to total population (per cent) | 19 92 | |
| Percentage of workers to total population (main activity only) | Persons | 32 93 |
| | Males | 52·51 |
| | Females | 11·87 |

[1]Density worked out after excluding the figures of Jammu and Kashmir as the figures for the area beyond the cease-fire line are *not available*

# 2 NATIONAL SYMBOLS

**NATIONAL FLAG**

The National Flag is a horizontal tricolour of deep saffron (Kesari) at the top, white in the middle and dark green at the bottom in equal proportion. The ratio of the width of the Flag to its length is two to three. In the centre of the white band is a wheel, in navy blue, which represents the *Charkha*. Its design is that of the wheel (*Chakra*) which appears on the abacus of the Sarnath Lion Capital of Asoka. Its diameter approximates to the width of the white band and it has 24 spokes.

The design of the National Flag was adopted by the Constituent Assembly of India on 22 July 1947. Its use and display are regulated by a code.

**STATE EMBLEM**

The State Emblem of India is an adaptation from the Sarnath Lion Capital of Asoka as preserved in the Sarnath museum. In the original, there are four lions, standing back to back, mounted on an abacus with a frieze carrying sculptures in high relief of an elephant, a galloping horse, a bull and a lion separated by intervening wheels (*Chakras*) over a bell-shaped lotus Carved out of a single block of polished sandstone, the Capital is crowned by the Wheel of the Law (*Dharma Chakra*).

In the State Emblem adopted by the Government of India on 26th January 1950, only three lions are visible, the fourth being hidden from view. The wheel appears in relief in the centre of the abacus with a bull on the right and a horse on the left and the outlines of the other wheels on the extreme right and left. The bell-shaped lotus has been omitted. The words, *Satyameva jayate*, from the *Mundaka Upanishad* meaning 'Truth alone triumphs', are inscribed below the abacus in Devanagari script.

**NATIONAL ANTHEM**

Rabindranath Tagore's song *Jana-gana-mana* was adopted by the Constituent Assembly as the National Anthem of India on 24 January 1950. It was first sung on 27 December 1911 at the Calcutta session of the Indian National Congress. The complete song consists of five stanzas The first stanza constitutes the full version of the National Anthem. It reads :

Jana-gana-mana-adhinayaka jaya he
  Bharata-bhagya-vidhata
Punjaba-Sindhu-Gujarata-Maratha-
  Dravida-Utkala-Banga
Vindhya-Himachala-Yamuna-Ganga
  Uchhala-jaladhi-taranga
Tava subha name jage,
  Tava subha asisa mage,
  Gahe tava jaya-gatha.
Jana-gana-mangala-dayaka jaya he
  Bharata-bhagya-vidhata
Jaya he, jaya he, jaya he,
  Jaya jaya jaya, jaya he.

Playing time of the full version of the National Anthem is approximately 52 seconds A short version consisting of the first and last lines of this stanza (playing time approximately 20 seconds) is also

played on certain occasions. The following is Tagore's English rendering of the stanza :

Thou art the ruler of the minds of all people,
Dispenser of India's destiny.
Thy name rouses the hearts of Punjab, Sind, Gujarat and
Maratha,
Of Dravida and Orissa and Bengal.
It echoes in the hills of Vindhyas and Himalayas,
mingles in the music of Jamuna and Ganges
and is chanted by the waves of the Indian Sea.
They pray for thy blessings and sing thy praise.
The saving of all people waits in thy hand,
Thou dispenser of India's destiny.
Victory, victory, victory to thee.

NATIONAL SONG

Bankim Chandra Chatterjee's *Vande Mataram*, which was a source of inspiration to the people in their struggle for freedom, has an equal status with *Jana-gana-mana* The first political occasion on which it was sung was the 1896 session of the Indian National Congress The following is the text of its first stanza :

Vande Mataram !
Sujalam, sulphalam, malayaja-shitalam,
Shasyashyamalam, Mataram !
Shubhrajyotsna, pulakitayaminim,
Phullakusumita-drumadala-shobhinim,
Suhasinim sumadhura-bhashinim,
Sukhadam varadam, Mataram !

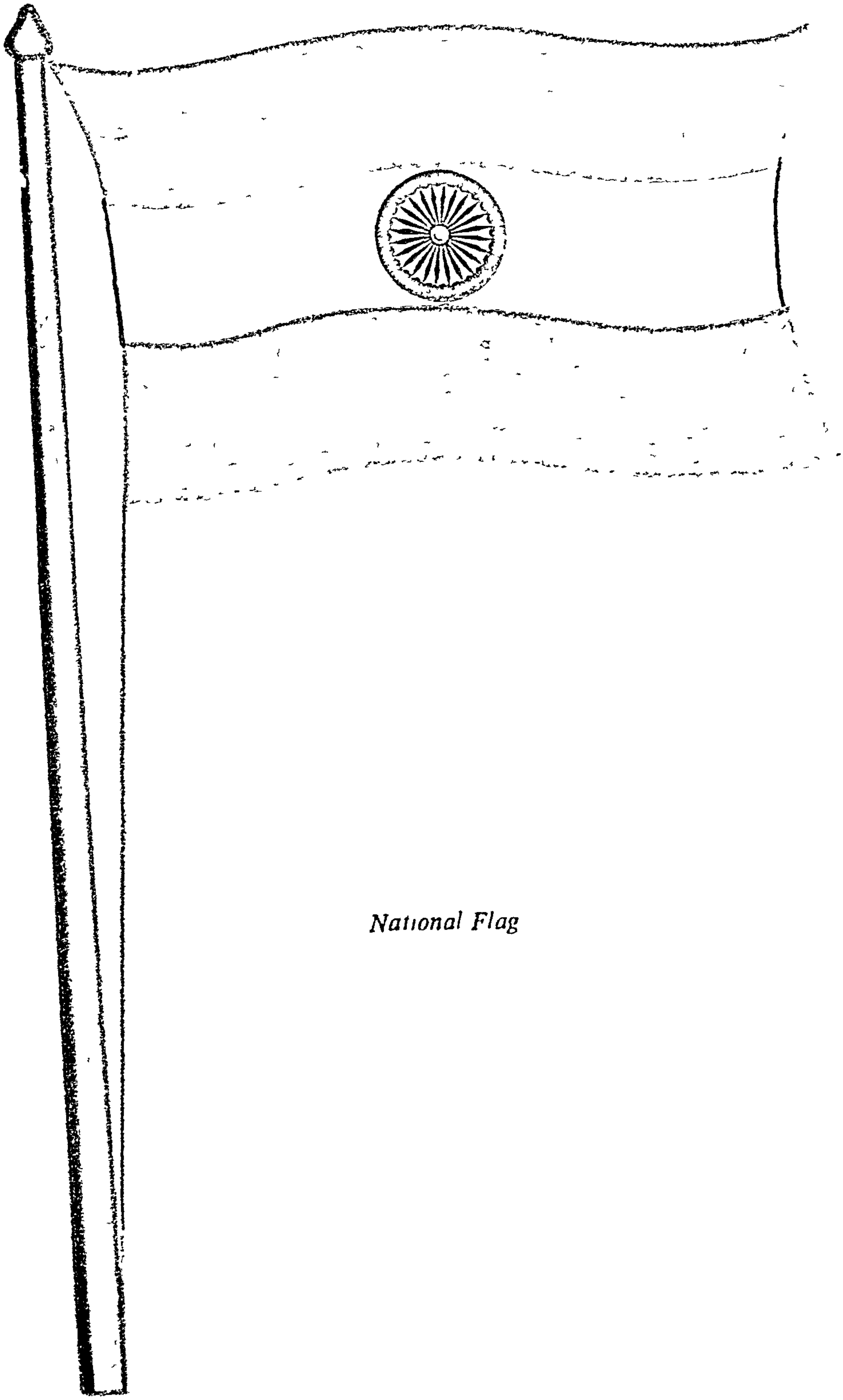
The English translation of the stanaza rendered by Shri Aurobindo is

I bow to thee, Mother,
richly-watered, richly-fruited,
cool with the winds of the south,
dark with the crop of the harvests
the Mother !
Her nights rejoicing in the glory of the moonlight,
her lands clothed beautifully with her trees in flowering bloom,
sweet of laughter, sweet of speech,
the Mother, giver of boons, giver of bliss !

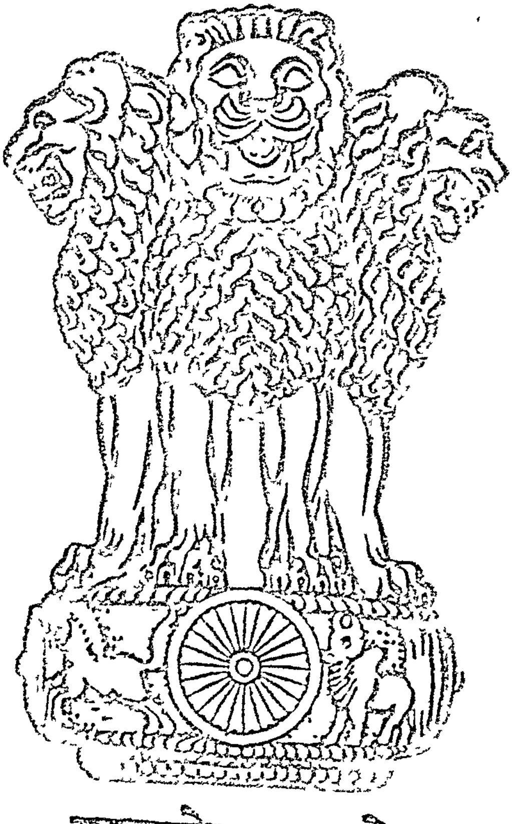
NATIONAL CALENDAR

A uniform National Calendar based on the Saka era with Chaitra as its first month and a normal year of 365 days was adopted from 22 March 1957 along with the Gregorian calendar for the following official purposes : (i) The Gazette of India, (ii) news broadcasts by All India Radio, (iii) calendars issued by the Government of India, and (iv) government communications addressed to members of the public

The dates of the National Calendar have a permanent correspondence with the dates of the Gregorian calendar, 1 Chaitra falling on 22 March normally and on 21 March in a leap year.



*National Flag*




*National Emblem*

# 3 GOVERNMENT

India, a union of states, is a Sovereign Democratic Republic with a parliamentary system of government. The Republic is governed in terms of the Constitution, which was adopted by the Constituent Assembly on 26 November 1949 and came into force on 26 January 1950

The Constitution is federal in structure with unitary features and the President of India is the constitutional head of the executive of the union. Though the Constitution says that the executive power of the union is vested in the President, it also specifies that he shall exercise this power 'in accordance with the Constitution' Article 74(1) of the Constitution enjoins that there shall be a 'Council of Ministers with the Prime Minister at the head to aid and advise the President in the exercise of his functions' The real executive power thus vests in the Council of Ministers headed by the Prime Minister, collectively responsible to the Lok Sabha (House of the People). Similarly, in the states, the Governor occupies the position of the head of the executive of the state. but it is virtually the Council of Ministers with the Chief Minister at the head, collectively responsible to the Legislative Assembly of the state, which carries on the executive government.

Under the Constitution, the areas of jurisdiction of the union and states are demarcated. The constituent and residual powers of legislation are vested in Parliament of the union

Besides, a system of local self-government is in vogue The Directive Principles of State Policy embodied in article 40 of the Constitution say that the state shall take steps to organise village Panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-government A Panchayati Raj system has grown in almost every state whereby every village as well as groups of villages have self-governing institutions with varying powers In the big cities there are elected municipal corporations and in medium and small towns there are elected municipal councils or committees

The superintendence, direction and control of the preparation of the electoral rolls for, and the conduct of. all elections to parliament and to the state legislatures and of elections to the offices of President and Vice-President are vested in the Election Commission which consists of the Chief Election Commissioner and such number of other Election Commissioners as the President may fix and appoint. The Chief Election Commissioner's independence is sought to be protected by making a special constitutional provision for his removal.

The parliamentary system of government in India is based on adult suffrage, whereby all citizens of India who are not less than 21 years of age and are not disqualified on certain grounds like non-residence, unsoundness of mind or corrupt practices have the right to be registered as voters in any election to the Lok Sabha and to the legislative assemblies of the states In 1971, the number of voters on the electoral rolls was more than 27 14 crores.

The Constitution also has provisions for the independence of the judiciary, of the Comptroller and Auditor-General of India. and the Public Service Commissions

The judiciary has now been separated from the executive at all levels throughout the country

**THE UNION AND ITS TERRITORY**

India comprises 22 states and nine union territories. The states are: Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal. The union territories are: Andaman and Nicobar Islands, Arunachal Pradesh, Chandigarh, Dadra and Nagar Haveli, Delhi, Goa, Daman and Diu, Lakshadweep, Mizoram and Pondicherry.

**CITIZENSHIP**

The Constitution provides for a single and uniform citizenship for the whole of India. Every person who was at the commencement of the Constitution domiciled in India and (a) was born in India, or (b) either of whose parents was born in India, or (c) who had been ordinarily resident in the territory of India for not less than five years immediately preceding that date, became a citizen of India. Special provision was made for migrants from Pakistan and for persons of Indian origin resident abroad The Citizenship Act 1955, which supplements the provisions of the Constitution, provides for the acquisition of citizenship by birth, descent, registration, naturalisation and incorporation of territory. The Act also provides for loss of citizenship by renunciation, termination and deprivation.

**FUNDAMENTAL RIGHTS**

The Constitution offers all citizens, individually and collectively, some basic freedoms. These are guaranteed in the Constitution in the form of seven broad categories of Fundamental Rights which are justiciable These are. (i) the right to equality including, equality before law, prohibition of discrimination on grounds of religion, race, caste, sex, or place of birth and equality of opportunity in matters of employment, (ii) the rights to freedom of speech and expression; assembly; association or union, movement; residence; acquisition, holding and disposal of property, and the right to practise any profession or occupation (some of these rights are subject to the security of the State, friendly relations with foreign countries, public order, decency or morality); (iii) the right against exploitation, prohibiting all forms of forced labour, child labour and traffic in human beings; (iv) the right to freedom of conscience and free profession, practice and propagation of religion; (v) the right of minorities to conserve their culture, language and script and to establish and administer educational institutions of their choice; (vi) the right to property, subject to the right of the State to compulsory acquisition for public purpose and by authority of a law which also fixes the amount to be paid or lays down the principles to determine the amount; and (vii) the right to constitutional remedies for the enforcement of Fundamental Rights

**FUNDAMENTAL DUTIES**

By the 42nd amendment of the Constitution, adopted in 1976, fundamental duties of the citizens have also been enumerated. These enjoin upon a citizen, among other things, to abide by the Constitution, to cherish and follow the noble ideals which inspired our national struggle for freedom, to defend the country and to render national service when called upon to do so and to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities

**DIRECTIVE PRINCIPLES**

The Constitution lays down certain Directive Principles of State Policy which, though not justiciable, are "fundamental in the govern-

OF STATE POLICY

ance of the country" and it is 'the duty of the State to apply these principles in making laws.' These lay down that the State shall strive 'to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of national life.' The State shall direct its policy in such manner as to secure the right of all men and women to an adequate means of livelihood, equal pay for equal work, and, within the limits of its economic capacity and development, to make effective provision for securing the right to work, education and public assistance in the event of unemployment, old age, sickness and disablement or other cases of undeserved want. The State shall also endeavour to secure to workers a living wage, human conditions of work, a decent standard of life and full enjoyment of leisure and social and cultural opportunities.

In the economic sphere, the State is to direct its policy in such a manner as to secure the distribution of ownership and control of the material resources of the community to subserve the common good and to ensure that the operation of the economic system does not result in the concentration of wealth and means of production to common detriment. The State is also to take steps to secure the participation of workers in the management of industries.

Some of the other important Directives relate to the provision of opportunities and facilities for children to develop in a healthy manner, free and compulsory education for all children up to the age of fourteen; promotion of educational and economic interests of scheduled castes, scheduled tribes and other weaker sections; organisation of village Panchayats; separation of judiciary from the executive; promulgation of a uniform civil code for the whole country; protection of national monuments; promotion of justice on a basis of equal opportunity; provision of free legal aid; protection and improvement of the environment and safeguarding of forests and wild life of the country; and the promotion of international peace and security, just and honourable relations between nations, respect for international law and treaty obligations and settlement of international disputes by arbitration.

## THE UNION

EXECUTIVE

The union executive consists of the President, the Vice President and the Council of Ministers under the Prime Minister.

President

The President is elected by an electoral college consisting of the elected members of both Houses of Parliament and of the legislative assemblies of the state in accordance with the system of proportional representation by means of the single transferable vote To secure uniformity among the states *inter se* as well as parity between the states as a whole and the union, suitable weightage is given to each vote The President must be a citizen of India, not less than 35 years of age, and eligible for election as a member of the Lok Sabha (House of the People) His term of office is five years and he is eligible for re-election. His removal from office is to be in accordance with the procedure prescribed in article 61. He may, by writing under his hand addressed to the Vice-President, resign his office

The executive power of the union is vested in the President and is exercised by him either directly or through officers of the government in accordance with the Constitution The supreme command of the Defence Forces also vests in him. The President summons, prorogues,

addresses, sends messages to Parliament and dissolves the Lok Sabha; promulgates ordinances at any time, except when both Houses of Parliament are in session, makes recommendations for introducing financial and money bills and gives assent to bills; grants pardons, reprieves, respites or remissions of punishment or suspends, remits or commutes sentences in certain cases When there is a failure of constitutional machinery in a state, he can assume to himself all or any of the functions of the government of the state. The President can proclaim emergency in the country if he is satisfied that a grave emergency exists whereby the security of India or of any part of the territory thereof is threatened whether by war or external aggression or internal disturbance.

**Vice President**

The Vice President is elected by an electoral college consisting of the members of both Houses of Parliament in accordance with the system of proportional representation by means of the single transferable vote. He must be a citizen of India, not less than 35 years of age, and eligible for election as a member of the Rajya Sabha (Council of States). His term of office is five years and he is eligible for re-election. His removal from office is to be in accordance with the procedure prescribed in article 67(b).

The Vice President is the *ex-officio* Chairman of the Rajya Sabha and acts as the President when the latter is unable to discharge his functions due to absence, illness or any other cause, or till the election of a new President (to be held within six months) when a vacancy is caused by the death, resignation or removal, or otherwise of the President While so acting he ceases to perform the functions of the Chairman of the Rajya Sabha

**Council of Ministers**

There is a Council of Ministers headed by the Prime Minister to aid and advise the President in the exercise of his functions. The Prime Minister is appointed by the President who also appoints other ministers on the advice of the Prime Minister. The Council is collectively responsible to the Lok Sabha It is the duty of the Prime Minister to communicate to the President all decisions of the Council of Ministers relating to the administration of the affairs of the union and proposals for legislation and, information relating to them and, if the President so requires, submit for the consideration of the Council any matter on which a decision has been taken by a minister but which has not been considered by the Council.

The Council of Ministers comprises ministers, who are members of the Cabinet, and ministers of state. For the list of personnel of the central government, see Appendices

**Administrative Set-up**

Rules of Business have been framed under the Constitution for the allocation of the business of government among ministers and its more convenient transaction

The allocation is made by the President on the advice of the Prime Minister for specifying the items of business allotted to each ministry and by assigning a ministry or a part of ministry or more than one ministry to the charge of a minister. A cabinet minister is often assisted by a minister or ministers of state or deputy ministers or both.

Generally, each ministry has an officer designated as Secretary to the Government of India to advise the minister on policy and administration

**Cabinet Secretariat**

The Department of Cabinet Affairs under the Cabinet Secretariat has an important co-ordinating role in the process of decision-making at the highest level and operates under the direction of the Prime Minister. Its functions include submission of cases to the Cabinet and its committees, preparation of the records of decisions taken and follow-up action on their implementation. It also services the committees of Secretaries which meet periodically under the chairmanship of the Cabinet Secretary to consider and advise on problems requiring inter-ministerial consultation and co-ordination. It formulates the Rules of Business and allocates the business of the Government of India to the ministries and departments under the direction of the Prime Minister and with the approval of the President The Department obtains and circulates to the President, the Vice-President, the Council of Ministers and other important functionaries, periodical summaries and notes on important developments in each ministry

**PUBLIC SERVICES**

For recruitment to civil services and posts under the union government, the Constitution provides for an independent body known as the Union Public Service Commission The chairman and members of the Commission are appointed by the President.

To ensure the independence of the Commission, the Constitution debars its chairman from further employment either under the Government of India or the government of a state. A member of the Commission is, however, eligible for appointment as chairman of that Commission or of a state Public Service Commission, but for no other government employment

The personnel of the Commission as on 15 September 1977 was :

| | | |
|---|---|---|
| *Chairman*· | A R Kidwai | |
| *Members* | Asoka Sen | P C Vaidya |
| | Teja Singh Virk | N S Saxena |
| | Sarup Singh | Prof S Sampath |
| | M Singaravelu | |

**ATTORNEY-GENERAL**

The Attorney-General for India is appointed by the President to hold office during the pleasure of the President. He must be a person qualified to be appointed a judge of the Supreme Court. He gives advice to the Government of India upon such legal matters, and performs such other duties of a legal character, as may be referred or assigned to him by the President. In the performance of his duties, he has the right to audience in all courts in India as well as the right to take part in the proceedings of Parliament without the right to vote.

**COMPTROLLER AND AUDITOR-GENERAL**

The Comptroller and Auditor-General of India is appointed by the President The procedure and the grounds for his removal from office are the same as for a Supreme Court judge He is not eligible for further office under the union or a state government after he ceases to hold his office

The President after consultation with the Comptroller and Auditor-General prescribes, the form in which the accounts of the union and of the states are to be kept. His reports on the accounts of the union and of the states are submitted to the President and the respective Governors and are placed before Parliament and state legislatures.

His duties, powers and conditions of service have been specified by the Comptroller and Auditor-General's (Duties, Powers and Conditions of Service) Act, 1971.

OFFICIAL LANGUAGE

Hindi in Devanagari script is the official language of the union and the international form of Indian numerals is used for official purposes. It was, however, provided in the Constitution that English shall continue to be used for all official purposes of the union till 25 January 1965 But later on it was felt that a complete change-over to Hindi was not practicable within the stipulated period. Hence, the Official Languages Act, 1963, as amended, lays down that English may continue to be used, in addition to Hindi, for all official purposes of the union for which it was being used immediately before 26 January 1965 and also for the transaction of business in Parliament. Further, English shall be used for purposes of communication between the union and a state which has not adopted Hindi as its official language. Where Hindi is used for communication between a state which has adopted Hindi as its official language and another state which has not done so, such communication shall be accompanied by a translation in English. Even a state which has not adopted Hindi as its official language may use Hindi for communication with the union or with a state which has adopted Hindi as its official language.

A separate department of official language had been created in June 1975 to look after the work relating to official language and to co-ordinate the activities of various ministries/departments.

LEGISLATURES

The legislature of the union, which is called Parliament, consists of the President and two Houses, known as the Rajya Sabha and the Lok Sabha Each House of Parliament has to meet within six months of its previous sitting. A joint sitting of the two Houses can be held in certain cases.

Rajya Sabha

The Constitution provides that the Rajya Sabha shall consist of not more than 250 members, of whom 12 having special knowledge or practical experience in literature, science, art and social service, shall be nominated by the President and the rest shall be representatives of the states and the union territories. The elections to the Rajya Sabha are indirect, those representing the states are elected by the elected members of the legislative assemblies of the states concerned in accordance with the system of proportional representation by means of the single transferable vote and those representing the union territories are chosen in such manner as Parliament may by law prescribe. The Rajya Sabha is not subject to dissolution, one-third of its members retiring on the expiration of every second year.

The membership of the Rajya Sabha, as constituted at present, is 244. Of these, 232 represent the states and union territories, of whom 231 are indirectly elected and one, representing the union territory of Arunachal Pradesh[1] is nominated by the President. Twelve members, being specialists in the fields of literature, science, art and social service, are nominated by the President.

---

[1]Under the Government of Union Territories (Amendment) Act, 1975, an indirectly elected member will hereafter represent the union territory of Arunachal Pardesh in the Rajya Sabha

**Lok Sabha**

The Lok Sabha as constituted in March 1977 consisted of 544 members Of these, 525 are directly elected from 22 states and 17 from nine union territories Two members are nominated by the President to represent the Anglo-Indian community.

The number of seats for each state is so allocated that the ratio between the number and the population of the state is, as far as practicable, the same for all the states The allocation of seats in the present Lok Sabha is based on the 1971 census and under the Forty-second Amendment of the Constitution (1976), will continue to be so based until figures of the first Census taken after 2000 A.D. become available. The term of the Lok Sabha is six years from the date appointed for its first meeting During an emergency, Parliament may by law prolong its life for a period not exceeding one year at a time and not extending in any case beyond a period of six months after the emergency has ceased to operate

The state-wise allocation of seats in the two Houses and the party position in the Lok Sabha is given in table 3.1. For names of members of Parliament, see Appendices

**Qualifications for Membership of Parliament**

In order to be chosen a member of Parliament, a person must be a citizen of India, must be not less than 30 years of age in the case of the Rajya Sabha and not less than 25 years of age in the case of the Lok Sabha Additional qualifications may be prescribed by Parliament by law.

**Parliamentary Privileges**

The Constitution provides for freedom of speech in Parliament No member of Parliament can be held liable to any proceedings in any court in respect of anything said or any vote given by him in Parliament or any of its committees Other powers, privileges and immunities of the members are the same as those enjoyed by the members of the House of Commons of the British Parliament at the commencement of the Indian Constitution, until Parliament defines them by law. The validity of any proceedings in parliament shall not be called in question on the ground of any irregularity of procedure.

**Leaders of Opposition in Parliament**

Giving cognizance to the important role of the Leader of Opposition in parliamentary democracy, statutory recognition has been accorded to the Leaders of Opposition in the Lok Sabha and Rajya Sabha They also get salary and certain facilities to enable them to discharge their functions in parliament. Necessary legislation for this was enacted in July 1977

**Functions and Powers of Parliament**

The main functions of Parliament are to make laws for the country and make finances available to the government for the services of the State. The Council of Ministers is collectively responsible to the Lok Sabha Parliament is also vested with the powers to impeach the President and to remove judges of the Supreme Court and High Courts, the Chief Election Commissioner and the Comptroller and Auditor-General in accordance with the procedure laid down in the Constitution

All legislation requires the consent of both Houses of Parliament. In the case of money bills, however, the will of the Lok Sabha prevails. Delegated legislation is also subject to review and control by Parliament All financial legislation must be recommended by the President but the Lok Sabha alone has the power to assent or refuse to assent,

TABLE 3 1

ALLOCATION OF SEATS IN TWO HOUSES OF PARLIAMENT AND PARTY POSITION IN LOK SABHA

(As on 30 September 1977)

| | No of seats in Rajya Sabha | Lok Sabha | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Seats | Janata | Congress | CPI (M) | AIADMK | Other parties | Un-attached | Total |
| STATES | | | | | | | | | |
| Andhra Pradesh | 18 | 42 | — | 39 | — | — | — | 1 | 40 (2 Vacant) |
| Assam | 7 | 14 | 3 | 10 | — | — | — | 1 | 14 |
| Bihar | 22 | 54 | 52 | — | — | — | — | 2 | 54 |
| Gujarat | 11 | 26 | 14 | 10 | — | — | — | 1 | 25 (1 vacant) |
| Haryana | 5 | 10 | 9 | — | — | — | — | — | 9 (1 vacant) |
| Himachal Pradesh | 3 | 4 | 4 | — | — | — | — | — | 4 |
| Jammu & Kashmir | 4 | 6 | — | 3 | — | — | 2[2] | 1 | 6 |
| Karnataka | 12 | 28 | 11 | 26 | — | — | — | — | 27[1] |
| Kerala | 9 | 20 | — | 11 | — | — | 9[3] | — | 20 |
| Madhya Pradesh | 16 | 40 | 37 | 1 | — | — | 1[4] | 1 | 40 |
| Maharashtra | 19 | 48 | 19 | 20 | 3 | — | 6[5] | — | 48 |
| Manipur | 1 | 2 | — | 2 | — | — | — | — | 2 |
| Meghalaya | 1 | 2 | — | 1 | — | — | — | 1 | 2 |
| Nagaland | 1 | 1 | — | — | — | — | — | 1 | 1 |
| Orissa | 10 | 21 | 15 | 4 | 1 | — | — | — | 21 |
| Punjab | 7 | 13 | 3 | — | 1 | — | 8[6] | — | 12 (1 vacant) |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Rajasthan | 10 | 25 | 24 | 1 | — | | | | |
| Sikkim | 1 | 1 | — | 1 | — | — | — | — | 1 |
| Tamil Nadu | 18 | 39 | 3 | 14 | — | 18 | 37 | 1 | 39 |
| Tripura | 1 | 2 | 1 | 1 | — | — | — | — | 2 |
| Uttar Pradesh | 34 | 85 | 85 | — | — | — | — | — | 85 |
| West Bengal | 16 | 42 | 15 | 3 | 17 | — | 6[6] | 1 | 42 |
| UNION TERRITORIES | | | | | | | | | |
| Andaman & Nicobar | — | 1 | — | 1 | | — | — | — | 1 |
| Arunachal Pradesh | 1 | 2 | — | 1 | — | — | — | 1 | 2 |
| Chandigarh | — | 1 | 1 | — | — | — | — | — | 1 |
| Dadra & Nagar Haveli | — | 1 | — | — | — | — | — | 1 | 1 |
| Delhi | 3 | 7 | 7 | — | — | — | — | — | 7 |
| Goa, Daman & Diu | — | 2 | — | 1 | — | — | — | 1 | 2 |
| Lakshadweep | — | 1 | — | 1 | — | — | — | — | 1 |
| Mizoram | 1 | 1 | — | — | — | — | — | 1 | 1 |
| Pondicherry | 1 | 1 | — | — | — | 1 | — | — | 1 |
| Anglo Indian | — | 2 | — | — | — | — | — | 2 | 2 |
| Nominated by President under Section 80(i)(a) of the Constitution | 12 | — | — | — | — | — | — | — | — |
| TOTAL | 244 | 544 | 293 | 151 | 22 | 19 | 35 | 18 | 538 (5 vacant) |

1 Excluding the speaker.
2 National Conference-2
3 CPI-4, Kerala Congress-2, Muslim League-2, RSP-1
4 Republican Party of India (Khobraghade)-1
5 Peasant & Workers Party-5, Republican Party of India (Khobraghade)-1.
6 Akali Dal-8.
7 C.P.I.-3.
R.S.P.-3, F.B.-3.

to the demands for grants, authorise appropriations of money and approve the proposals for taxation. In times of an emergency, and also in some other contingencies laid down in the Constitution, the legislative authority of Parliament also extends to matters enumerated in the State List. The power to amend the Constitution also rests primarily with Parliament, except in some cases where ratification by the legislatures of not less than one-half of the states is prescribed by the Constitution.

**Parliamentary Committees**

To assist Parliament in its deliberations, Parliamentary committees are appointed or elected by the respective Houses themselves on a motion made, or nominated by their presiding officers. The committees broadly fall under three groups; those concerned mainly with the organisation and powers of the Houses; those assisting the House in their legislative functions; and committees with financial functions. In the first category fall the Committees on Rules, Privileges and Absence of Members and the Business Advisory Committee. The legislative committees include Select Committees of either House and Joint Select Committees of the two Houses, set up *ad hoc* for the consideration of important bills. The three important committees in the third category are the Public Accounts, the Estimates and the Public Undertakings Committees. While Rajya Sabha members are associated with the first and third committees, membership of the second is confined only to the Lok Sabha. Ministers are debarred from being members of these three committees.

The Public Accounts Committee scrutinises the Appropriation Accounts of the Government of India and the report of the Comptroller and Auditor-General thereon. It ensures that public money is spent in accordance with Parliament's decisions and calls attention to cases of waste, extravagance, loss or nugatory expenditure. The Estimates Committee reports on 'what economies, improvements in organisation, efficiency or administrative reform, consistent with the policy underlying the estimates' may be effected. It also examines whether 'the money is well laid out within the limits of the policy implied in the estimates' and suggests the form in which the estimates shall be presented to Parliament. The Committee on Public Undertakings examines the reports and accounts of certain specified public undertakings and reports of the Auditor-General thereon, if any. It also examines whether the public undertakings are being run efficiently and 'managed in accordance with sound business principles and prudent commercial practices'.

Other important committees of the Lok Sabha are the Committee on Government Assurances, the Committee on Subordinate Legislation and the Committee on Petitions. The first Committee scrutinises the assurances given by ministers on the floor of the House and reports on the extent of their implementation. The second Committee scrutinises whether the powers to make regulations, rules, sub-rules and bye-laws conferred by the Constitution or delegated by Parliament are being properly exercised within such delegation. The third Committee examines petitions or representations received from individuals or associations. Ministers are debarred from being members of these committees. A new committee *viz.,* Committee on Papers laid, has been constituted by the Lok Sabha on 1 June 1975 to examine the papers laid on the Table of the House in regard to delay as also to find out reasons for not laying the Hindi version of the papers on the Table.

There are also three standing Joint Committees of the two Houses. They are the Committee on Offices of Profit, the Committee on Salaries and Allowances of Members of Parliament and the Committee on the Welfare of Scheduled Castes and Scheduled Tribes. The third Committee considers the reports of the Commissioner for Scheduled Castes and Scheduled Tribes and reports to both Houses as to the measures to be taken by the union government (including the administrations of the union territories) for their welfare.

There are Consultative Committees for different ministries and departments which provide a forum for discussion between members of Parliament and the ministries. These Committees function in accordance with the guidelines evolved by the government in consultation with leaders of opposition parties and groups

JUDICIARY
Supreme Court

The Supreme Court of India consists of a Chief Justice and not more than thirteen other judges appointed by the President. The judges hold office till the age of 65 For appointment as a judge of the Supreme Court, a person must be a citizen of India and must have been for at least five years a judge of a High Court or of two or more such courts in succession; or an advocate of a High Court or of two or more such courts in succession for at least ten years; or he must be, in the opinion of the President, a distinguished jurist Provision exists for the appointment of a judge of a High Court as an *ad hoc* judge of the Supreme Court and for retired judges of the Supreme Court or High Courts to sit and act as judges of that Court.

The Constitution seeks to ensure the independence of the Supreme Court judges in various ways. A judge of the Supreme Court cannot be removed from office except by an order of the President passed after an address by each House of Parliament supported by a majority of the total membership of that House and by a majority of not less than two-thirds of the members present and voting has been presented to the President in the same session for such removal on the ground of proved misbehaviour or incapacity. A person who has been a judge of the Supreme Court is debarred from practising in any court of law or before any other authority in India.

The membership of the Court as on 1 August 1977 was :

| | |
|---|---|
| Chief Justice | M. H. Beg |
| Judges | Y V Chandrachud<br>P N Bhagwati<br>V. R Krishna Iyer<br>P K Goswami<br>R. S Sarkaria<br>A. C Gupta<br>N L Untwalia<br>S Murtza Fazal Ali<br>P. N Singhal<br>Jaswant Singh<br>P. S Kailasam |

*Jurisdiction of Supreme Court*

The Supreme Court has original and appellate jurisdiction. Its exclusive original jurisdiction extends to any dispute between the union and one or more states, or between the union and any state or states on one side and one or more other states on the other; or between two or more states, if and in so far as the dispute involves any question (whether of law or of fact) on which the existence or extent of a legal right

depends. In addition, Article 32 of the Constitution gives an extensive original jurisdiction to the Supreme Court in regard to the enforcement of Fundamental Rights It is empowered to issue directions or order of writs, including those in the nature of writs of *habeas corpus, mandamus,* prohibition, *quo warranto* and *certiorari* to enforce them.

The appellate jurisdiction of the Supreme Court can be invoked by a certificate of the High Court concerned or by special leave granted by the Supreme Court, in respect of any judgement, decree or final order of the High Court in cases, both civil and criminal, involving substantial questions of law as to the interpretation of the Constitution. Appeals also lie to the Supreme Court in civil matters if the High Court concerned certifies (a) that the case involves a substantial question of law of general importance, and (b) that in the opinion of the High Court the said question needs to be decided by the Supreme Court. In criminal cases an appeal lies to the Supreme Court, if the High Court (a) has on appeal reversed an order of acquittal of an accused person and sentenced him to death or to imprisonment for life or for a period of not less than 10 years, or (b) has withdrawn for trial before itself any case from any court subordinate to its authority and has in such trial convicted the accused person and sentenced him to death or to imprisonment for life or for a period of not less than 10 years, or (c) certifies that the case is a fit one for appeal to the Supreme Court. Parliament is authorised to confer on the Supreme Court any further powers to entertain and hear appeals from any judgement, final order or sentence in a criminal proceeding of a High Court

The Supreme Court has also a very wide appellate jurisdiction over all courts and tribunals in India in as much as it may, in its discretion, grant special leave to appeal from any judgement, decree, determination, sentence or order in any case or matter passed or made by any court or tribunal in the territory of India

It has a special advisory jurisdiction in matters which may specifically be referred to it by the President under article 143 of the Constitution

Appeals also lie to the Supreme Court under some Parliamentary enactments

## THE STATES

The system of government in the states closely resembles that of the union

EXECUTIVE

The state executive consists of the Governor and the Council of Ministers with the Chief Minister at its head.

Governor

The Governor of a state is appointed by the President for a term of five years and holds office during his pleasure Only Indian citizens above 35 years of age are eligible for appointment to this office The executive power of the state is vested in the Governor and all executive actions of the government of the state are expressed to be taken in his name.

The Governor has to act on the aid and advice of the Council of Ministers, except in so far as he is by or under the Constitution required to exercise his functions or any of them in his discretion The discre-

tionary powers of the Governors, specifically so stated in the Constitution, are those relating to certain matters concerning the administration of the tribal areas in Assam and Meghalaya, the Tuensang area of Nagaland, the hill areas of Manipur and the Telengana region of Andhra Pradesh and the maintenance of law and order in Nagaland In the case of Sikkim, the Governor has special responsibility for peace and for an equitable arrangement for ensuring the social and economic advancement of different sections of the population of the state and in the discharge of his special responsibility he acts in his discretion subject to certain directions as the President from time to time, deems fit to issue However, all Governors while discharging such constitutional functions as the appointment of the Chief Minister of a state or sending a report to the President about the failure of the constitutional machinery in a state, have to exercise their discretion in accordance with the constitutional conventions

**Council of Ministers**

The Chief Minister is appointed by the Governor, who also appoints other ministers on the advice of the Chief Minister The Council of Ministers is collectively responsible to the legislative assembly of the state.

**Advocate-General**

There is an Advocate-General for each state who is appointed by the Governor to hold office during the pleasure of the Governor He must be a person qualified to be appointed a judge of a High Court. He gives advice to the state government upon such legal matters, and performs such other duties of a legal character, as may be referred or assigned to him by the Governor. The Advocate-General can take part in the proceedings of the state legislature without the right to vote

**Planning**

At the state level, an inter-departmental committee of secretaries headed by the Chief Secretary or Secretary in-charge of planning, coordinates development programmes Generally, the functions of coordination for planning and implementation of programmes in the districts are performed by an officer commonly known as Development Commissioner. As a rule, a committee of the state cabinet under the Chief Minister provides overall guidance and direction State planning boards which include non-officials have been set-up in most of the States.

**District Administration**

District Administration in the country is under a collector who is responsible for the proper collection of revenue, for the maintenance of law and order and for criminal administration in the district The police force in each district is headed by a superintendent of police.

For every state there is a legislature which consists of the Governor and one House or, as the case may be, two Houses In Andhra Pradesh, Bihar, Jammu and Kashmir, Karnataka, Maharashtra, Tamil Nadu and Uttar Pradesh, there are two Houses known as the Legislative Council and the Legislative Assembly [1] In the remaining states there is only one House known as the Legislative Assembly. Parliament can, by law, provide for the abolition of an existing legislative

[1] Although the Constitution (Seventh Amendment) Act 1956 provides for the creation of a legislative council in Madhya Pradesh, it has not yet been constituted

council or for the creation of one where one does not exist if the proposal is supported by a resolution of the legislative assembly concerned

**Legislative Council (Vidhan Parishad)**

The legislative council of a state comprises not more than one-third of the total number of members in the legislative assembly of the state and in no case less than 40 members[1]. About one-third of the members of the council are elected by members of the legislative assembly from amongst persons who are not its members, one-third by electorates consisting of members of municipalities, district boards and other local authorities, one-twelfth by registered teachers in educational institutions not lower in standard than secondary schools and a further one-twelfth by registered graduates of more than three years' standing. The remaining members are nominated by the Governor from among those who have distinguished themselves in the fields of literature, science, art, co-operative movement and social service The legislative councils are not subject to dissolution but one-third of their members retire every second year.

**Legislative Assembly (Vidhan Sabha)**

The legislative assembly of a state consists of not more than 500 and not less than 60 members[2] chosen by direct election from territorial constituencies in the state. The demarcation of territorial constituencies is to be done in such a manner that the ratio between the population of each constituency and the number of seats allotted to it, as far as practicable, is the same throughout the state. The term of an assembly is five years unless it is dissolved earlier.

Table 3.2 gives the strength of the legislative councils in states with bicameral legislatures and the number of seats and party position in the legislative assemblies in the states as on 1 May 1976. It also shows the position in the union territories having assemblies and in the Delhi Metropolitan Council.

*Powers and Functions*

The state legislature has exclusive powers over subjects enumerated in List II of the Seventh Schedule to the Constitution and concurrent powers over those enumerated in List III. The financial powers of the legislature include authorisation of all expenditure, taxation and borrowing by the state government The legislative assembly alone has the power to originate money bills The legislative council can make only recommendations in respect of changes it considers necessary within a period of fourteen days of the receipt of a money bill from the assembly. The assembly can accept or reject the recommendations.

*Reservation of Bills*

The Governor of a state may reserve any Bill for the consideration of the President. Bills relating to subjects like compulsory acquisition of property, measures affecting the powers and the position of High Courts, and imposition of taxes on the storage, distribution and sale of water or electricity in inter-state river or river valley development projects should necessarily be so reserved. No Bill seeking to impose

---

[1] The legislative council of Jammu and Kashmir has 36 members vide section 50 of the Constitution of Jammu and Kashmir

[2] The legislative assembly of Sikkim has 32 members vide article 371 F of the Constitution

TABLE 3·2

EXISTING STRENGTH OF LEGISLATIVE ASSEMBLIES AND PARTY POSITION

(As on 1 October 1977)

| State/Union territory | No of seats in Legislative Council | Present total strength | Janata | Congress | C P.I | C P M | Others[4] | Independents | Vacant |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1. Andhra Pradesh | 20 | 287 | 33 | 232 | 8 | 1 | 2 | 2 | 9 |
| 2. Assam | — | 114 | 22 | 75 | 3 | — | 1 | 8 | 5 |
| 3 Bihar | 96 | 324 | 213 | 57 | 21 | 4 | 5 | 22 | 2[3] |
| 4 Gujarat | — | 182 | 107 | 68 | — | — | — | 6 | 1 |
| 5 Haryana | — | 90 | 75 | 3 | — | — | 5 | 7 | — |
| 6 Himachal Pradesh | — | 68 | 53 | 9 | — | — | — | 6 | — |
| 7 Jammu & Kashmir[1] | 36 | 76 | 13 | 11 | — | — | 48 | 4 | — |
| 8. Karnataka | 63 | 216 | 36 | 163 | 3 | — | — | 6 | 8 |
| 9 Kerala | — | 140 | 6 | 37 | 23 | 17 | 54 | 2 | 1 |
| 10. Madhya Pradesh | 90 | 320 | 229 | 84 | — | — | — | 7 | — |
| 11 Maharashtra | 78 | 270 | 15 | 213 | 2 | 1 | 12 | 7 | |
| 12 Manipur | — | 60 | 55 | — | 4 | — | — | — | 1 |
| 13. Meghalaya | — | 60 | — | 40 | — | — | 18 | — | 2 |
| 14 Nagaland | — | 60 | Assembly dissolved on 20-5-75 | | | | | | |
| 15. Orissa | — | 147 | 110 | 26 | 1 | 1 | — | 9 | — |
| 16. Punjab | — | 117 | 24 | 17 | 7 | 8 | 58 | 2 | 1[3] |
| 17. Rajasthan | — | 200 | 148 | 41 | 1 | 1 | — | 8 | 1[3] |
| 18. Sikkim | — | 32 | 26 | — | — | — | — | 6 | — |
| 19. Tamil Nadu | 63 | 234 | 10 | 27 | 5 | 12 | 179 | 1 | — |
| 20. Tripura | — | 60 | 27 | 13 | 1 | 15 | — | 3 | 1 |
| 21. Uttar Pradesh | 108 | 425 | 351 | 46 | 9 | 1 | — | 16 | 2[3] |
| 22. West Bengal | — | 294 | 29 | 20 | 2 | 178 | 59 | 5 | 1[3] |
| 23. Arunachal Pradesh | — | 23 | — | 21 | — | — | 2 | — | — |

[1]Excluding 24 seats in Pakistan occupied territory

[2]Delhi Metropolitan Council

[3]Polls countermanded (In Bihar in one constituency)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| 24 Delhi[2] | — | 56 | 46 | 10 | — | — | — | — | — |
| 25. Goa, Daman & Diu | — | 30 | 3 | 10 | — | — | 15 | 2 | — |
| 26. Mizoram | — | 30 | Assembly dissolved on 11-5-1977 | | | | | | |
| 27. Pondicherry | — | 30 | 8 | 2 | 1 | 1 | 18 | — | — |
| Total | 624 | 3,945 | 1,639 | 1,225 | 91 | 240 | 476 | 129 | 55 |

[4]*Other Parties include*

ANDHRA PRADESH —Majlis-Itte-hal Muslimeen-1, Republican Party of India-1

ASSAM.—Revolutionary Communist Party of India-1

BIHAR.—Forward Bloc-1, Shosit Samaj Dal-1, Jharkand-1, All India Jharkand-2

HARYANA —Vishal Haryana Party-5

JAMMU & KASHMIR.—National Conference-47, Jamait Islami-1.

KERALA —Kerala Congress—20, R S P-9, National Democratic Party-5, Muslim League-12, Muslim League (Opposition)-3, P S P-3, Kerala Congress-(Pillai Group) 2

MAHARASHTRA —Peasants & Workers Party-4, Republican Party of India-1, Shiv Sena-1, Maharashtra Samajwadi Congress—6

MEGHALAYA.—All Party Hill Leaders Conference-14, HSPDP-4

PUNJAB —Shromani Akali Dal-58

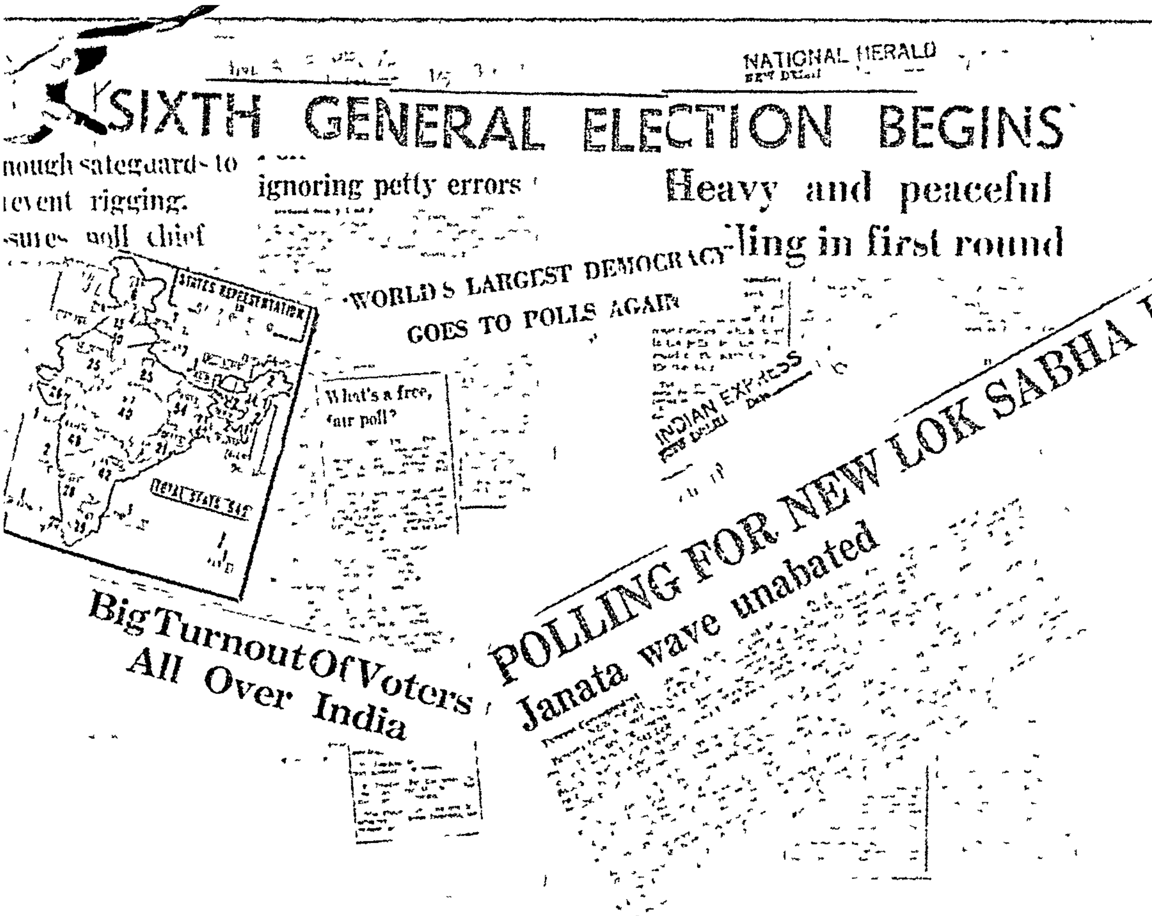
TAMIL NADU AIADMK-125, DMK-48, Indian National Forward Bloc-2, Tamil Nadu Progressive Toilers' Party-2, Forward Bloc-1, Muslim League-1

WEST BENGAL —Forward Bloc-25, R S P-20, Revolutionary Communist Party of India-3, Forward Bloc (Marxist) 3, Biplabi Bangla Congress-1, Socialist Unity Centre-4, Muslim League-1, Congress for Democracy 1, CPI (Marxist Leninist)-1

ARUNACHAL PRADESH.—People's Party of Arunachal Pradesh-2.

PONDICHERRY —AIADMK-15, DMK-3

GOA, DAMAN & DIU—Maharashtrawadi Gomantak-15




*Newspapers announcing the start of sixth Lok Sabha Elections*



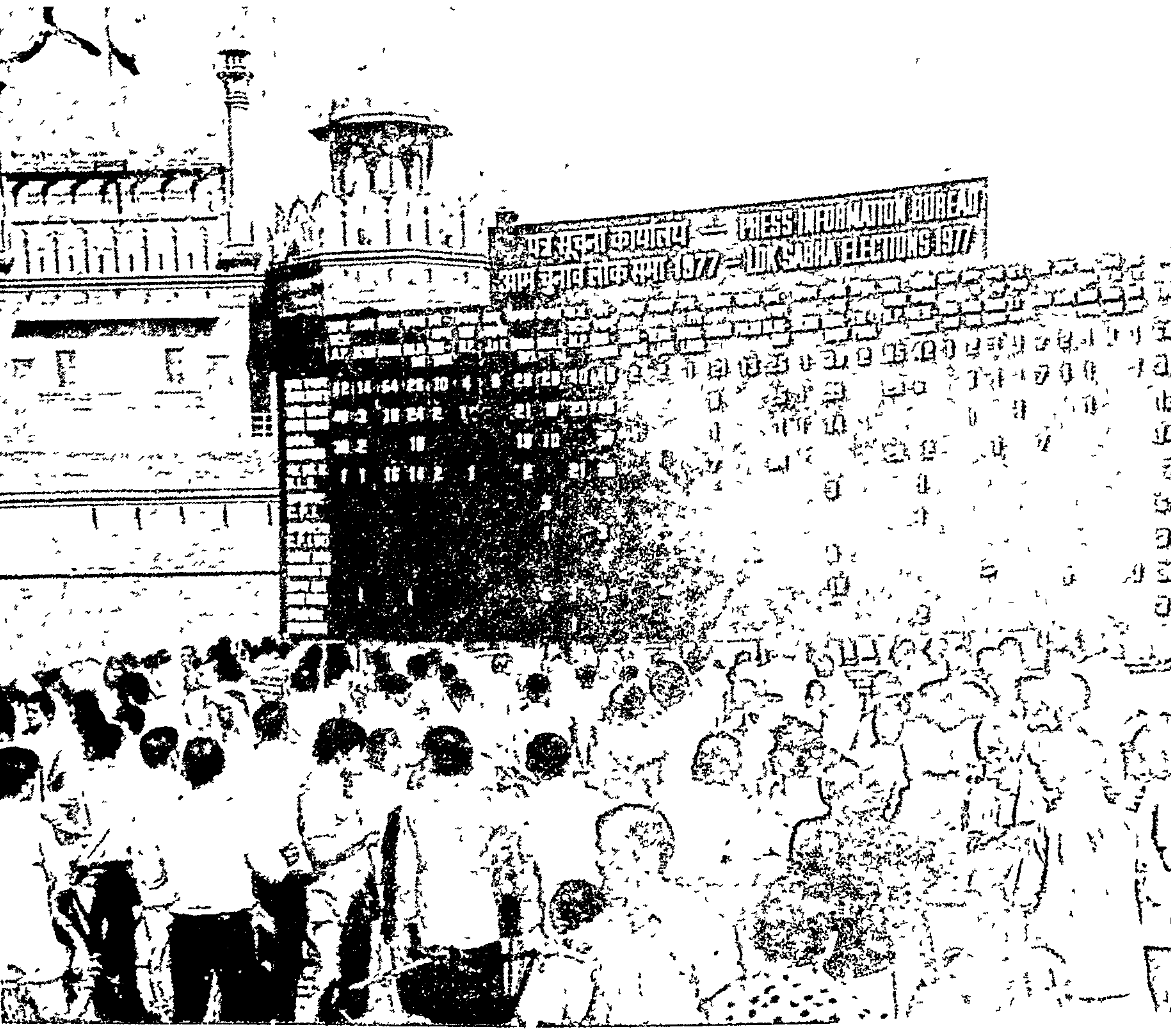
*Long queues of voters at a polling booth in Punjab.*

*Fisherwomen at a polling booth in Bombay*

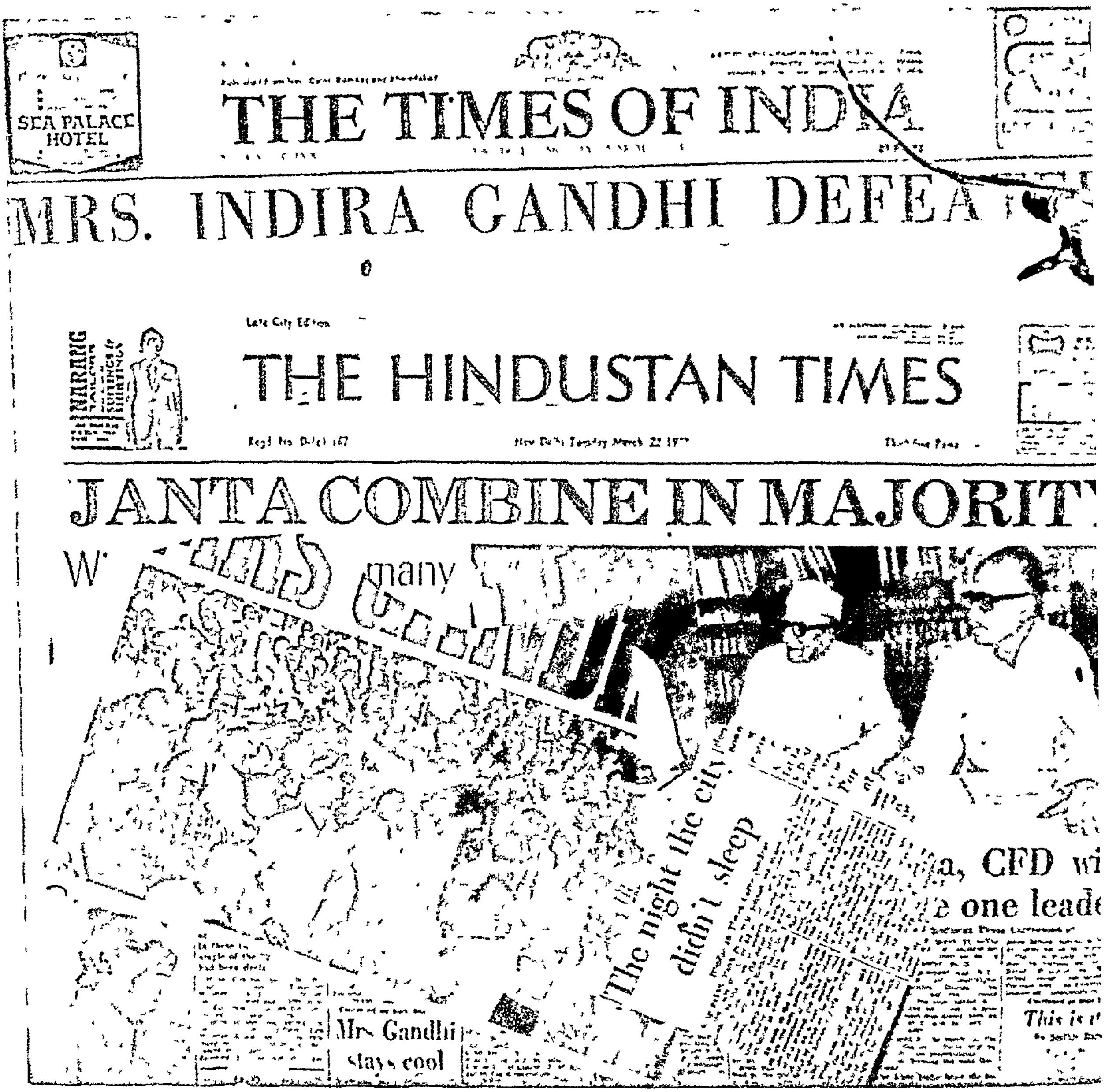




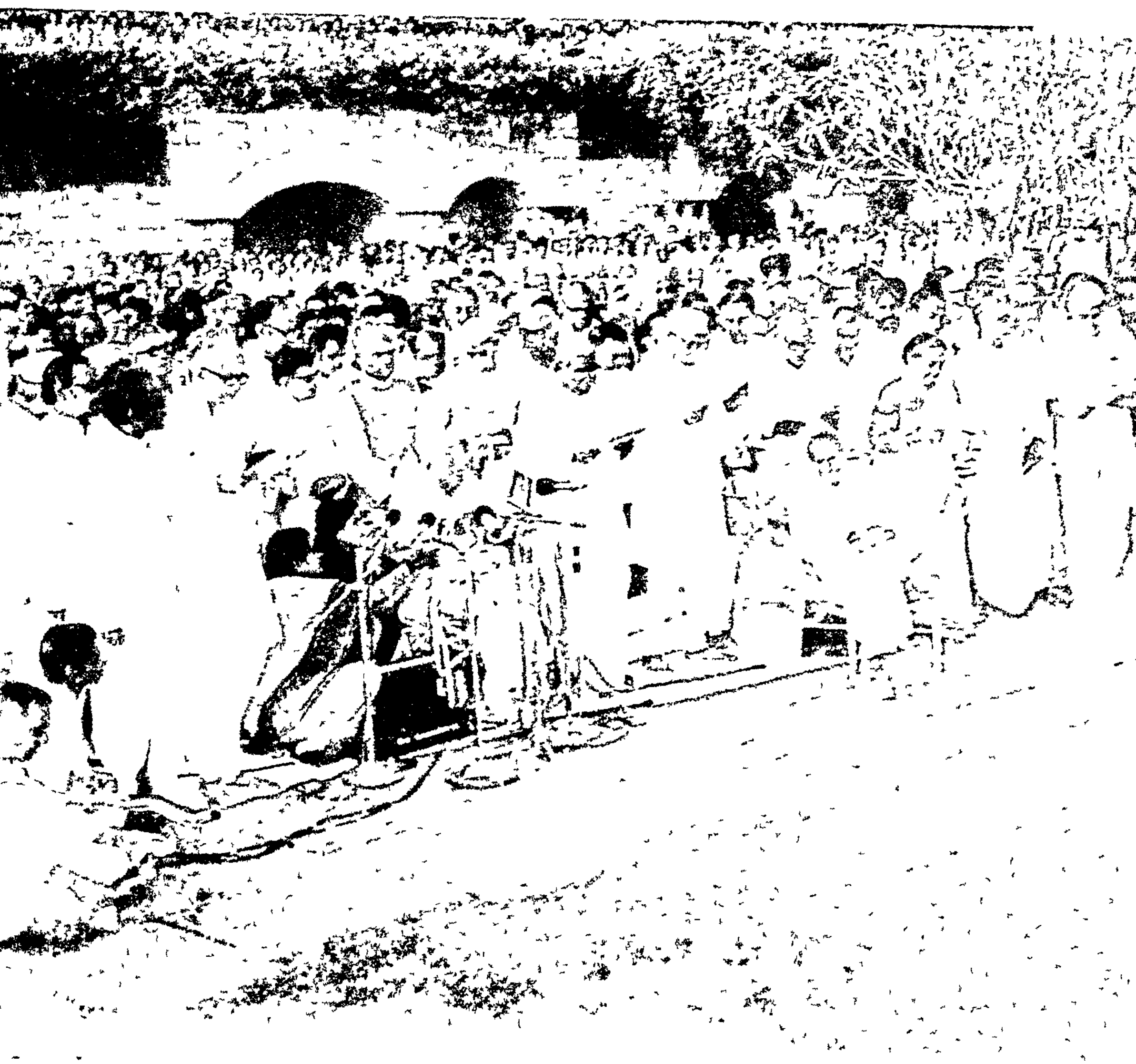
*Voters at a polling booth in Jammu and Kashmir.*




*Public eagerly looking at the board showing the election results at Red Fort, New Delhi on 21 March 1977.*




*Press reports victory of Janata Party and defeat of Smt Indira Gandhi.*



*Jaya Prakash Narayan administering pledge to newly elected MPs at Raj Ghat on 25 March 1977 to follow Gandhiji's ideals*



*Acting President B. D. Jatti administering oath of office*

restrictions on inter-state trade can be introduced in a state legislature without the previous sanction of the President

The state legislatures, apart from exercising the usual power of financial control, use all the normal parliamentary devices like questions, discussions, debates, adjournment and no-confidence motions and resolutions to keep a watch over the day-to-day work of the Executive. They also have their Committees on Estimates and Public Accounts to ensure that grants sanctioned by the legislature are properly utilised.

Every state has a High Court which stands at the head of the state's judicial administration There are 18 High Courts in the country, including two having jurisdiction over more than one state. Among the union territories, Delhi alone has a High Court of its own. Goa, Daman and Diu has a Judicial Commissioner while the other seven union territories come under the jurisdiction of different state High Courts. Each High Court consists of a Chief Justice and such other judges as the President may, from time to time, appoint The Chief Justice of High Court is appointed by the President in consultation with the Chief Justice of India and the Governor of the state. The procedure for appointing other judges is the same except that the Chief Justice of the High Court concerned is also consulted They hold office until they attain the age of 62 and are removable in the same manner as a judge of the Supreme Court of India To be eligible for appointment as a judge, one must have held a judicial office in India for ten years or must have practised as an advocate of a High Court or two or more such courts in succession for a similar period

Every High Court has the power to issue to any person or authority and government within its jurisdiction directions, orders or writs (including writs which are in the nature of *habeas corpus, mandamus,* prohibition, *quo warranto and certiorari,* or any of them) for the enforcement of any of the Fundamental Rights and for any other purpose.

This power may also be exercised by any High Court exercising jurisdiction in relation to the territories within which the cause of action, wholly or in part, arises for the exercise of such power, notwithstanding that the seat of such government or authority or the residence of such persons is not within those territories.

The High Courts have powers of superintendence over all courts and tribunals within their jurisdiction. They can call for returns from such courts, make and issue general rules and prescribe forms to regulate their practices and proceedings and determine the manner and form in which books, entries and accounts shall be kept

Table 3.3 gives the seat and territorial jurisdiction of the High Courts.

TABLE 3 3
JURISDICTION AND SEAT OF HIGH COURTS

| No | Name | Year of establishment | Territorial jurisdiction | Seat of the Court |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1 | Allahabad . . | 1866 | Uttar Pradesh | Allahabad (Bench at Lucknow) |
| 2 | Andhra Pradesh | 1954 | Andhra Pradesh | Hyderabad |

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| 3. | Gauhati . . | 1972 | Assam, Manipur, Meghalaya, Nagaland, Tripura, Mizoram and Arunachal Pradesh | Gauhati (temporary Benches at Imphal, Agartala and Kohima) |
| 4 | Bombay | 1861 | Maharashtra and Dadra & Nagar Haveli | Bombay Nagpur) |
| 5 | Calcutta | 1861 | West Bengal and Andaman & Nicobar Islands | Calcutta |
| 6 | Delhi | 1966 | Delhi | Delhi |
| 7 | Gujarat . | 1960 | Gujarat | Ahmadabad |
| 8 | Himachal Pradesh | 1971 | Himachal Pradesh | Simla |
| 9. | Jammu & Kashmir | 1928 | Jammu & Kashmir | Srinagar and Jammu |
| 10 | Karnataka | 1884 | Karnataka | Bangalore |
| 11 | Kerala . | 1956 | Kerala and Lakshadweep. | Ernakulam |
| 12 | Madhya Pradesh | 1956 | Madhya Pradesh | Jabalpur (Benches at Gwalior and Indore) |
| 13 | Madras . . | 1861 | Tamil Nadu and Pondicherry | Madras |
| 14 | Orissa | 1948 | Orissa | Cuttack |
| 15 | Patna . | 1916 | Bihar | Patna (temporary Bench at Ranchi) |
| 16 | Punjab & Haryana | 1947 | Punjab, Haryana & Chandigarh | Chandigarh |
| 17 | Rajasthan | 1949 | Rajasthan | Jodhpur |
| 18 | Sikkim . . | 1975 | Sikkim | Gangtok |

**Subordinate Courts**

Subject to minor variations, the structure and functions of the subordinate courts are more or less uniform throughout the country. A state is divided into a number of districts, each under the jurisdiction of a principal civil court presided over by a district judge. Sometimes he is assisted by additional district judges. Subordinate to a district judge is a hierarchy of different grades of civil courts.

Besides hearing suits, the civil courts exercise jurisdiction over several matters such as arbitration, guardianship, marriage, divorce, and probate Quasi-judicial tribunals distinct from the ordinary courts have also been set up under certain special Acts for determining some types of civil rights. In some cases, appeals lie from their orders to the ordinary civil courts. Every High Court exercises the power of superintendence over all Courts subordinate to it subject to its appellate jurisdiction.

The constitution and organisation of criminal courts and their procedure are regulated by the Code of Criminal Procedure, 1973, which came into force with effect from 1 April 1974, repealing the Code of Criminal Procedure, 1898. The Code provides separate sets of magistrates for the discharge of the executive and judicial functions. The executive magistrates are under the control of the state govern-

ment while the judicial magistrates are under the control of the High Court. On the executive side, for each district there is a district magistrate and under him a number of subordinate magistrates. These magistrates continue to deal with problems relating to the maintenance of law and order and the prevention of crime. On the judicial side, the judicial heirachy of magistrates consists of the chief judicial magistrate at the district level and the judicial magistrates of the first class and second class Broadly speaking, magisterial functions, which are esentially judicial in nature, are the concern of the judicial magistrates. In metropolian areas, with a population of more than 10 lakhs, there are metropolian magistrates who have larger powers for quicker disposal of cases

**Reform in Criminal Procedure**

Radical changes in the criminal procedure have been made by the new Code of Criminal Procedure, 1973. The new Code provides for the seperation of judiciary from the executive on all-India basis and makes several important changes designed to expedite the disposal of cases, to improve efficiency, to prevent abuses and to afford relief to the poorer sections of the community.

The system of appointing honorary magistrates or justices of the peace has been done away with Instead, a provision has been made for the appointment of retired or serving officers of government as special magistrates with summary powers to try special categories of petty cases The jury system has also been abolished

Under the Code, every person arrested with or without warrant shall be informed of the grounds of his arrest and in bailable cases, of his right to be released on bail A person cannot be kept in police custody during investigation for more than 15 days, even by an order of court. No person shall be kept on remand by order of court for more than 60 days in any case, after he will be entitled to be released on bail Bail provisions have been liberalised These include grant of anticipatory bail in certain cases.

Another major change is the doing away with committal proceedings in sessions cases The powers of revision conferred on superior courts cannot be exercised in respect on interlocutory orders The provision relating to compulsory stay of proceedings on the mere intimation by the party of his intention to move for a transfer has been omitted but stay of proceedings can, however, be obtained from superior courts in proper cases Provision has also been made to provide an opportunity to the accused to make his representation, if any, on the punishment proposed to be given after conviction

The provision for demanding security from habitual offenders has been extended to anti-social offenders like smugglers, blackmarketeers and persons, who default in provident fund contribution or commit offences under the Untouchability (Offences) Act, etc

A copy of the first information report will have to be given to the informant. If a police officer refuses to record the information, the aggrieved person can send it by post to the superintendent of police, who will pursue the matter

Courts have been given power to punish blatant cases of perjury on the spot

The period of detention in jail during remand shall be counted against the sentence of imprisonment ultimately awarded in the case

Limits have been prescribed for the duration of security proceed-

ings Such proceedings shall ordinarily terminate, if they are not concluded within six months. Where the offence is punishable with imprisonment for two years or less, the investigation, if not completed within six months, can be stopped by a magistrate. Periods of limitation on a graded scale for launching criminal prosecutions have been provided in cases not punishable with imprisonment for more than three years.

Legal aid at the expense of the State has been made compulsory in all sessions cases, if the accused is too poor to engaged a counsel at his expense. The state governments have been empowered to extend this provision to other cases by a notification.

**Separation of Judiciary from Executive**

Complete separation of the Judiciary from the Executive, which is a Directive Principle of State Policy, has been brought about on a uniform pattern with effect from 1 April 1974 in all the states and union territories except Jammu and Kashmir, Nagaland and tribal areas.

## UNION TERRITORIES

The union territories are administered by the President acting, to such extent as he thinks fit, through an administrator appointed by him.

The administrators of Arunachal Pradesh[1], Delhi, Goa, Daman and Diu, Mizoram and Pondicherry are designated as Lt. Governors, while the administrators of Andaman and Nicobar Islands, and Chandigarh are designated as Chief Commissioners. The Lt.-Governor of Goa, Daman and Diu is concurrently the administrator of Dadra and Nagar Haveli. Lakshadweep has a separate administrator.

The union territories of Arunachal Pradesh, Goa, Daman and Diu, Mizoram and Pondicherry have legislative assemblies and Councils of Ministers. Delhi has a metropolitan council and an executive council.

The legislative assemblies in the union territories may make laws with respect to matters in the state field, namely, those enumerated in List II or List III in the Seventh Schedule in so far as they are applicable in relation to union territories Parliament can also make laws with respect to such matters for the union territories.

The Metropolitan Council in Delhi has the right to discuss and make recommendations about matters insofar as they relate to Delhi.

## ZONAL COUNCILS

The states and union territories on the mainland except those in the north-eastern region are grouped into zones. Each zone has a high-level advisory body known as the Zonal Council which provides the forum for discussing matters of common interest to the states and union territories in that zone The states of Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan and the union territories of Chandigarh and Delhi are in the Northern Zone. The Central Zone comprises the states of Madhya Pradesh and Uttar Pradesh while the states of Bihar, Orissa and West Bengal are in the Eastern Zone. The states of Gujarat and Maharashtra and the union territories of Goa, Daman and Diu, and Dadra and Nagar Haveli are in the Western Zone The Southern Zone comprises the states of Andhra Pradesh, Karnataka, Kerala and Tamil Nadu and the union terirtory of Pondicherry

---

[1] Under the Government of Union Territories (Amendment) Act, 1975, the union territory of Arunachal Pradesh has come under a Lt Governor from 15 August 1975. The Pradesh Council and counsellors were replaced by a legislative assembly and a Council of Ministers respectively.

For the north-eastern region there is a body similar to the Zonal Councils to deal with matters of common interest in the states of Assam, Manipur, Meghalaya, Nagaland and Tripura and the union territories of Arunachal Pradesh and Mizoram The North-Eastern Council, which came into being in August 1972, has certain additional functions It has to formulate a unified and co-ordinated regional plan (which is in addition to the state plans) covering matters of common importance. In respect of projects or schemes intended to benefit two or more states, the Council has to recommend the manner in which they may be executed, managed or maintained, their benefits shared and the expenditure incurred The progress of implmentation of the plan and the expenditure thereon are supervised by the Council. It also brings about co-ordination amongst the constituent states and union territories The Council shall review from time to time the measures taken by the states for maintenance of security and public order and, as and when necessary, recommend further measures in this behalf.

## LOCAL GOVERNMENT

### Municipal Corporations

In most of the states, Corporations have been established for major cities under specific Acts of the state legislature. These are headed by elected mayors The administration of the city vests in an elected council and the powers of the corporation are exercised by three authorities : (i) general council of the corporation; (ii) standing committees, and (iii) the municipal commissioner/chief executive officer. The standing committees are elected by the council and carry out most of the work of administration including taxation, finance and preparation of budget, engineering works and health and education services The power of sanctioning estimates and contracts vests in the three authorities up to specified amounts The general council appoints most of the officers of the corporation but the municipal commissioner is appointed by the state government. The executive powers of the corporation generally vest in the municipal commissioner who prescribes the duties of the various officers, and supervises their work The functions of the municipal corporation include public safety, health, education and other conveniences of the citizens as well as construction and maintenance of water works and sewerage, streets and bridges, parks and recreation grounds, markets and shopping centres and so on. Major corporations also undertake works of housing and land development But there is growing practice of entrusting these works to special urban development authorities. There were 34 municipal corporations in the country in May 1975

### Municipal Committees and Councils

For all other towns and cities there are municipalities having elected boards or councils which in turn elect their own presidents In Maharashtra a system of direct election of presidents was introduced in 1974. All the members of a municipality constitute its general body which decides all questions of policy and important details of municipal administration. The powers of passing the budget, imposing taxes, voting expenditure and making rules and regulations vest in the general body. The municipal council, however, mostly functions through committees which exercise delegated powers or make recommendations to the council. The day-to-day work of the municipality is carried on by an executive officer, drawn sometimes from state civil service or a state-wide cadre of municipal officers.

In many states, however, the municipal councils continue to appoi their own executive officers and other officials.

**Local Self-Government in Districts**

The system of Panchayati Raj, which was introduced in 1959, is a three-tier structure of local self-government at the village, block and district levels. The states are, however, free to make changes in the structure to suit local conditions. All Panchayati Raj bodies are organically linked up. Special representation on these bodies is given to backward classes, women and co-operative societies.

**Village Panchayats**

Elected directly by and from among the villagers the Panchayats are responsible for agricultural production, rural industries, medical relief, maternity and child welfare, management of common grazing grounds, maintenance of village roads, streets, tanks and wells and provision of sanitation and drainage. In some places Panchayats also look after primary education, maintenance of village records and the collection of land revenue. For building up funds they levy tax on houses and lands, fairs and festivals and sale of goods, impose octroi duties, and build up remunerative community assets

For providing a speedy and inexpensive system of justice to the villagers, Nyaya (judicial) Panchayats or village courts are functioning in some of the states.

**Cantonment Boards**

Cantonment boards have been set up in cantonment areas to provide civic amenities and welfare services to the people living there. These boards are autonomous bodies subject to supervision and control by GOC-in-C of the Command and the central government. The number of elected and nominated members is kept equal in these boards varying from 1 to 7 although according to statutory provisions the number of nominated members may exceed the elected members by one. These boards have the power of taxation which is their main source of revenue The budget estimates prepared by the boards are scrutinised and sanctioned by the GOC-in-C of the Command. There were 62 cantonment boards on 1 January 1975.

# DEFENCE

India's defence policy aims at promoting and sustaining durable peace in the sub-continent by means of negotiations and co-operation among various countries in the region and at the same time equipping the defence forces as a safeguard against aggression

The supreme command of the Armed Forces is vested in the President of India. The responsibility for national defence, however, rests with the Cabinet All important questions having a bearing on defence are decided by the Cabinet Committee on Political Affairs, which is presided over by the Prime Minister. The Defence Minister is responsible to Parliament for all matters concerning the Defence Services. The administrative and operational control of the Armed Forces is exercised by the Ministry of Defence and the three Services Headquarters The Ministry of Defence acts as the central agency for ensuring a co-ordinated development of the three Services, for conveying the Government of India's decisions on policy matters to the three Services Headquarters for implementation and for obtaining financial sanction for defence expenditure from Parliament.

ORGANISATION

The three Services function under their respective Chiefs of Staff As on 1 November 1977 the Chiefs of Staff were :

| | |
|---|---|
| *Chief of the Army Staff* | General T. N Raina |
| *Chief of the Naval Staff* | Admiral Jal Cursetji |
| *Chief of the Air Staff* | Air Chief Marshal H. Moolgavkar |

Army

At the Army Headquarters, in New Delhi, the Chief of the Army Staff is assisted by the Vice Chief of the Army Staff and five other Principal Staff Officers—Deputy Chief of Army Staff, Adjutant-General, Quartermaster-General, Master-General of Ordnance and Military Secretary—and a Head of Branch, namely, Engineer-in-Chief.

The Army is organised into five Commands—Western, Eastern, Northern, Southern and Central—each under a General Officer Commanding-in-Chief of the rank of Lieutenant-General The Commands are divided into Areas, Independent Sub-Areas and Sub-Areas An Area is commanded by a General Officer Commanding of the rank of Major-General and an Independent Sub-Area and Sub-Area by a Brigadier.

The Army consists of a number of arms and services These are President's Body Guard, Armoured Corps, Regiment of Artillery, Corps of Engineers, Corps of Signals Infantry, Army Service Corps, Military Nursing Service, Army Medical Corps, Army Dental Corps, Army Ordnance Corps, Corps of Electrical and Mechanical Engineers, Remount and Veterinary Corps, Military Farm Services, Army Education Corps. Intelligence Corps, Corps of Military Police, Army Physical Training Corps. Pioneer Corps, Army Postal Service Corps and Defence Security Corps.

The sanctioned strength of all ranks of the Army is 8 5 lakhs

Navy

The operational control of the Navy is exercised by the Naval Headquarters in New Delhi through a chain of commands

At the Headquarters, the Chief of the Naval Staff is assisted by four Principal Staff Officers, namely, the Vice Chief of the Naval Staff, Chief of Personnel, Chief of Material and Deputy Chief of the Naval Staff.

The Navy is organised into three Naval Commands under Flag Officers Commanding-in-Chief : Western Naval Command with headquarters at Bombay, Eastern Naval Command with headquarters at Vishakhapatnam and Southern Naval Command with headquarters at Cochin.

The Navy has two Fleets—the Western Fleet and the Eastern Fleet. The two Fleets consist of the aircraft-carrier *INS Vikrant,* two cruisers, a number of frigate squadrons, including some of the latest types of anti-submarine and anti-aircraft frigates, a squadron of anti-submarine patrol vessels, one mine-sweeping squadron, submarines, a submarine depot ship and fast vessels carrying surface-to-surface guided missiles The Navy has a sizeable air wing with various types of fixed wing aircraft and helicopters. Besides, there are some survey ships, two fleet tankers and a number of auxilliary craft The survey units of the Navy carry out a survey of India's coast and approaches to the harbours. A naval organisation is functioning at Port Blair to ensure the security of the Bay Islands. An interim coast guard organisation was set up in February 1977. The Navy took over the responsibilities for Maritime Reconnaissance from the I A.F. and also acquired some MR aircraft during the year

A dockyard is being developed at Vishakhapatnam on the east coast which is nearing completion. The first phase of modernisation and expansion programme of the Naval Dockyard, Bombay has been completed and the second phase is under way.

Since 1964, India has been building her own naval ships and craft. Four Leander class frigates, INS Nilgiri, Himgiri, Udaygiri and Dunagiri, a survey ship, Minesweepers, Seaward Defence Boats, besides Harbour Utility and ocean-going Tugs have already been commissioned. Two more Leander class frigates, Seaward Defence Boats, Survey Ships, Landing Craft and a number of auxilliary vessels are under construction.

**Air Force**

The Indian Air Force is organised into five Commands and an independent Operational Group. These are : Western Air Command, Central Air Command, Eastern Air Command, Training Command, Maintenance Command and No. 1 (Opl.) Group.

At the Air Headquarters in New Delhi, the Chief of the Air Staff is assisted by four Principal Staff Officers, namely. Vice Chief of the Air Staff, Deputy Chief of the Air Staff, Air Officer-in-Charge, Administration and Air Officer-in-Charge, Maintenance. Each of them controls a group of Directorates

The Air Force combat fleet, which is made up of 45 squadrons, consists of a variety of fighters, fighter bombers, fighter interceptors, bombers and transport and logistics support aircraft. Among the fighter aircraft are SU-7s, Hunters, Gnats, Ajeets, MIG-21s and HF-24s. Canberras comprise the bomber fleet. The transport fleet consists of AN-12s Dakotas, Fairchild Packets, Caribous, Otters, TU-124s and Indian built HS-748s. Helicopters in use are MI-4s, Cheetas and Chetaks, the last two being built in India. The aircraft used for training purposes are HT-2 Basic Trainer, HJT-16 (Kiran) Jet Trainer and HS-748 transport trainer which are all built in India.

**Commissioned Ranks**

The following are the commissioned ranks in the three Services; each rank is shown opposite to its equivalent in the other Services.

| *Army* | *Navy* | *Air Force* |
|---|---|---|
| General | Admiral | Air Chief Marshal |
| Lieutenant-General | Vice-Admiral | Air Marshal |
| Major-General | Rear-Admiral | Air Vice Marshal |
| Brigadier | Commodore | Air Commodore |
| Colonel | Captain | Group Captain |
| Lieutenant-Colonel | Commander | Wing Commander |
| Major | Lieutenant-Commander | Squadron Leader |
| Captain | Lieutenant | Flight Lieutenant |
| Lieutenant | Sub-Lieutenant | Flying Officer |
| Second Lieutenant | Acting Sub-Lieutenant | Pilot Officer |

**EXPENDITURE**

Table 4 1 shows the trend in total defence expenditure since 1964-65, its percentage to the total expenditure of the union government and its percentage to the gross national product

**TABLE 4 1 DEFENCE EXPENDITURE**

| Year | Total defence expenditure (Rs crores) | Total expenditure of Govt of India (Rs crores) | Gross national product (Rs crores) | Defence expenditure as percentage of total Govt expenditure | Defence expenditure as percentage of gross national product |
|---|---|---|---|---|---|
| 1964-65 | 806 | 2,603 | 21,113 | 31 0 | 3·8 |
| 1965-66 | 885 | 2,720 | 21,866 | 32 5 | 4 0 |
| 1966-67 | 909 | 3,217 | 25,250 | 28 3 | 3 6 |
| 1967-68 | 968 | 3,148 | 29,612 | 30 7 | 3 3 |
| 1968-69 | 1,033 | 3,140 | 30,293 | 32 9 | 3·4 |
| 1969-70 | 1,101 | 3,590 | 33,521 | 30 7 | 3 3 |
| 1970-71 | 1,199 | 4,120 | 36,568[1] | 29 1 | 3 3 |
| 1971-72 | 1,525 | 5,245 | 38,620[1] | 29 1 | 3 9 |
| 1972-73 | 1,652 | 5,498 | 42,136[1] | 30 0 | 3 9 |
| 1973-74 | 1,681 | 5,845 | 52,195[1] | 28 8 | 3 2 |
| 1974-75 | 2,112 | 7,423 | 61,551[1] | 28 5 | 3 4 |
| 1975-76 | 2,472 | 9,429 | 64,168[1] | 26 2 | 3 9 |
| 1976-77 (RE) | 2,615 | 10,557 | n a | 24 8 | n a |
| 1977-78 (BE) | 2,752 | 11,767 | n a. | 23 4 | n a |

[1]Provisional RE-Revised estimates
BE—Budget estimates
n a —Not available
*Source* Ministry of Finance

**TRAINING INSTITUTIONS**

**National Defence Academy**

The National Defence Academy, Khadakvasla, conducts a three-year combined basic military training course for potential officers of the three Services after which they receive specialised training at their respective Service establishments. The cadets are also trained up to the degree level of an Indian university. Admissions to the Academy are made on the basis of a qualifying bi-annual written examination conducted by the Union Public Service Commission at different centres in the country, followed by assessment by a Services Selection Board. Boys who have passed the Higher Secondary or an equivalent examination and are between 16 and 18½ years of age on the first day of

the month in which the course starts are eligible for admission. They must be unmarried and should remain so during the period of their stay at the Academy.

All expenses of the cadets while at the Academy, except the pocket expense of Rs 40 per month, are met by the government Where the monthly income of parents is less than Rs. 450, even this expense is borne by the government.

**Defence Services Staff College**

The Staff College at Wellington provides training to officers of Army, Navy and Air Force for holding staff appointments in their own Services as well as in inter-Service headquarters. About 300 officers from the three Services, including some 26 foreign officers and 4 civilian officers, are trained every year

**National Defence College**

The National Defence College in New Delhi trains senior officers of the three Defence Services, including a few from foreign countries and senior civilian officers, in politico-military studies connected with national security at the strategic level

**Armed Forces Medical College**

The Armed Forces Medical College, Pune conducts an M.B.B.S. course and a degree course in Nursing. It also conducts advanced courses in various disciplines of medical science, each of 96 weeks' duration, for Armed Forces Medical Officers to enable them to specialise in their respective fields and also to make them eligible to appear for post-graduate degree and diploma examinations of Poona University. Likewise, long courses are being conducted in various disciplines of Dental Surgery leading to M.D.S. degree of Bombay University.

The College also trains para-medical personnel for various technical categories in Armed Forces Medical Services In addition, the College runs refresher courses for Medical Officers of the Armed Forces.

**Army Colleges and Schools**

The Indian Military Academy, Dehra Dun is the premier institution for training officers for the Army Its intake includes cadets passing out of the National Defence Academy at Khadakvasla who receive one year's training here before being commissioned. The IMA holds 1½ years' courses for higher age-group entrants who have either qualified in the Union Public Service Commission's examination or are graduate Cadets of the National Cadet Corps and have thereafter qualified at the Services Selection Board. Graduates selected for specialised commissions in various technical arms are given one year's training at the IMA A year's training is also imparted at the IMA to serving Regular or Territorial Army Junior and Non-Commissioned Officers (JCOs and NCOs) who have successfully completed the three-year training course at the Army Cadet College; on completion of the training at the IMA, these personnel are granted officer commissions in the Army. These other ranks are selected earlier for their officer-like qualities and general academic and educational standard.

The Officers' Training School at Madras trains officers who are granted Short Service Commissions in the Army.

The College of Combat, Mhow, conducts the Higher Command Course, the Senior Command Course and the Junior Command Course The College of Military Engineering, Kirkee imparts training to officers and other ranks in all aspects of military engineering Longer courses of over two years' duration are also conducted to train

officers up to the degree standard. The Military College of Telecommunication Engineering at Mhow imparts basic and advanced technical training in telecommunications and signal tactics.

The Armoured Corps Centre and School, Ahmadnagar conducts training in the tactical handling of armoured fighting vehicles and their driving and maintenance The School of Artillery, Deolali provides training in field branch and air defence artillery. The Infantry Schools at Mhow and Belgaum conduct courses for infantry officers and men. The Army Ordnance Corps School at Jabalpur imparts specialised corps training in the identification and preservation of all items, including ammunition and explosives, stocked by the ordnance depots.

The Institute of Defence Management at Secunderabad trains Service and civilian officers in modern defence management techniques.

Some of the other Army training centres and schools are : the High Altitude Warfare School; Counter Insurgency and Jungle Warfare School; the Army Service Corps School, Bareilly, EME School, Vadodara; Military College of Electronics and Mechanical Engineering, Secunderabad; Remount Veterinary Corps Centre and School, Meerut; Army Education Corps Training College and Centre, Pachmarhi; Intelligence Training School and Depot, Pune, Corps of Military Police; Centre and School, Faizabad, Army School of Physical Training, Pune; Army Air Transport Support School, Agra; and the Army Clerks Training School, Aurangabad

**Naval Training Establishments**

*INS Vendurnthy* and the Naval Air Station, *Garuda,* both at Cochin, are the principal training centres for the officers and men of the Navy While *INS Venduruthy* imparts training in gunnery, navigation, torpedo and anti-submarine warfare and communications, *Garuda* has training aircraft of the Navy and some training schools

Mechanical engineers and artificers are trained at *INS Shivaji* in Lonavla (Maharashtra). Junior engineers and electrical officers of the Service receive training at the engineering college at Lonavla

*INS Valsura,* Jamnagar (Gujarat) trains officers and men of the Electrical Branch of the Service With most of the ships now fitted with complicated electronic equipment, training has been geared to the present requirements of the Navy.

New recruits joining the Navy are trained at *INS Circars,* Vishakhapatnam, and on completion of their courses become sailors. Sea training is imparted by the two Fleets Officers and men of the Supply and Secretariat Branch are trained at *INS Hamla,* Malad, Bombay

To meet the increasing training requirements, a naval academy has been established at Cochin. A Sailors' Training Establishment has been set up at Dabolim in Goa The Boys' Training Establishment, now as Vishakhapatnam, is to be moved to Chilka Lake in Orissa The First Training Squadron has been raised to give sea training to officers and seamen

**Air Force Training Institutions**

The basic flying training for pupil pilots is imparted at the Elementary Flying School at Bidar. and the advanced flying training at Air Force Academy, Hyderabad or Fighter Training Wing, Hakimpet (for alternate courses) Wings and Commissions are given on completion of the advanced stage since June 1977. Thereafter, these trainee officers are trifurcated into three streams for the final applied stage of flying training—the fighter stream at Air

Force Academy, Hyderabad or the Fighter Training Wing, Hakimpet (for alternate courses), the transport stream at the Transport Training Wing, Yellahanka and the helicopter stream at the Helicopter Training School, Hakimpet. *Ab-initio* navigation training, advanced navigation training and air signallers' training is given at Navigation and Signals School, Hyderabad. Ground Duties (non-technical) officers and ATC officers are trained at the Air Force Academy, Hyderabad. Flying instructors are trained at the Flying Instructors' School, Tambaram A College of Air Warfare at Secunderabad, with two departments (Department of Air Warfare and Department of Joint Warfare), conducts higher joint services and air warfare studies.

The Air Force Administrative College, Coimbatore runs advanced courses for Ground Duties (Non-technical) officers and the Junior Commanders' course for all branches. Technical officers are trained at the Air Force Technical College, Jalahalli. Senior technical officers with more than 13 years of service are trained in management techniques at the Air Force Station, Jalahalli. A school at Sambra near Belgaum trains airmen in accounting, equipment, general office duties, drill and catering. A new school for training officers and airmen in physical fitness and sports also functions at Sambra Schools at Jalahalli train airmen in higher signals, electrical instruments, photo and police duties Flying instructors are trained at a school at Tambaram. Another school at Tambaram trains airmen in mechanical trades such as air frames, engines, armament, safety equipment and motor mechanics Para-troopers for air-borne units of the Army are trained at the Paratroopers Training Schools.

Medical and aircrew officers receive specialised training at the Institute of Aviation Medicine, Bangalore

Rashtriya Indian Military College

Run on the lines of public schools, the Rashtriya Indian Military College, Dehra Dun prepares boys who desire subsequently to choose a military career for entrance examination to the National Defence Academy

Sainik Schools

Like the Rashtriya Indian Military College, 17 Sainik Schools prepare boys in the age group 10-18 for the entrance examination of the National Defence Academy. The total strength of boys as on 31 December 1976 was 8,059 Out of these, 860 students belonged to the families of Defence personnel.

## SUPPLIES, PRODUCTION AND RESEARCH

A substantial part of the defence stores needed by the Services is now being developed and produced in the country. The responsibility for this has been entrusted to two separate Departments—Defence Production and Defence Supplies—in the Ministry of Defence. The Department of Defence Production organises, directs and co-ordinates production of material and equipment required by the Armed Forces. It carries out its responsibility through the Directorates of Technical Development and Production, Ordnance Factories, Inspection, Standardisation, Defence Research and Development Organisation and nine public sector undertakings.

The Department of Defence Supplies handles the problems of indigenisation of defence stores by making use of the facilities available both in the private and public sectors. The Department also helps in establishing the production of newly developed items. In the

task of indigenisation, it operates through a number of technical committees.

The Defence Production Board formulates policies in the field of production and plans future growth on balanced and economic lines. The policy on foreign collaboration agreements for defence production was announced by the government on 25 April 1973. Under this, the existing practice of periodic extension of such agreements will be ended. Instead, outright purchase will be made of the required know-how which will be improved by research and development within the country

**Ordnance Factories**

There are thirty one ordnance factories under the control of the Department of Defence Production. These turn out a variety of equipment and stores, such as battle tanks, highly sophisticated guns, including anti-aircraft guns and field guns, rifles, ammunition, bombs, rockets, a variety of vehicles, bridges, explosives and propellants, instruments, clothing, parachutes and leather items.

Over the years, the value of production in the ordnance factories has risen from Rs 15 crores in 1947 to about Rs 375 crores in 1976-77 Their products have earned a name for quality, reliability, precision and sophistication Self-sufficiency has been achieved in the production of arms and ammunition, both for the small and medium calibre fighting requirements, most of which are products of our own indigenous efforts, with 10 per cent imported raw materials Production of heavy guns and their ammunition has commenced and ordnance factories hope to achieve self-sufficiency in this field as well

Capital projects have been taken in hand involving an outlay of about Rs 330 crores in the field of heavy guns, ammunition, explosives and metallurgical stores In the new areas of production, are production of heavy guns for the Army, creation of production facilities for propellants for the heavy guns, ammunition, modernisation of facilities at High Explosive Factory, Kirkee. the Cordite Factory, Aruvankadu, and Ordnance Factory, Bhandara When all these projects are completed, ordnance factories could start making newer anti-tank weapons and associated ammunition, fuels for missiles and special sighting instruments using passive devices for very low level illumination like star light. Laser techniques are being adapted for range finding and other uses

Ordnance factories have developed a considerable reservoir of technology and expertise over the years, and parties from India and abroad have been requesting for their help in setting up production and training. They are setting up a Defence Production Training Institute in a friendly country these days A public sector enterprise, Coal India Limited, has engaged the ordnance factories to set up a facility at Bhandara for manufacture of 5,000 tonnes of commercial explosives a year for use in gassy coal mines This project is expected to go into production by the end of 1978.

**Defence Undertakings in Public Sector**

There are nine public sector undertakings in the defence sector, employing about 93,000 persons (as on 31 March 1977). Their production, both for defence as well as for civil use, has been increasing in value at the rate of fifty to sixty lakh rupees a year. The production in 1974-75 was Rs 298 crores, in 1975-76 Rs 346 crores and in 1976-77 Rs 405 crores approximately.

During 1976-77, these undertakings earned foreign exchange of the value of about Rs. 29.47 crores.

Hindustan Aeronautics Limited, set up in 1964, has 11 factories in six different states. Of these factories, six—including the unit at Barrackpore in West Bengal—comprise the Bangalore Complex of HAL. Two factories, at Koraput and Nasik, comprise the Mig complex. The factories at Lucknow and Hyderabad form the accessories complex and the one at Kanpur manufactures the military freighter version of HS-748 aircraft and the low-wing agricultural aircraft, Basant, which was designed and developed for aerial application of pesticides and fertilisers. Besides HS-748 (MF) and Basant, HAL is currently manufacturing the improved version of the Gnat jet fighter, Ajeet, the jet trainer, Kiran, the trainer HPT-32, the supersonic jet interceptor, Mig-21M, the Alouette III helicopter, Chetak and the light-weight helicopter for AOP role, Cheetah.

Bharat Electronics (BEL), Bangalore, has three units. Its Bangalore unit, which began production in 1956 with just two electronic items, has diversified its products which range from the tiny transmitters to highly sophisticated radars. Among the electronic components manufactured by it are radio and television receiving valves, germanium and silicon transistors and diodes, X-ray tubes and TV picture tubes The unit at Ghaziabad, set up in 1973, manufactures electronic equipment to meet the needs of an air defence ground environment system BEL's third unit is being set up at Pune for manufacture of components for night vision electronic equipment. The company's exports amounted to Rs 7 87 crores during 1976-77

The Mazagon Docks at Bombay, the Goa Shipyard at Goa and the Garden Reach Shipbuilders and Engineers at Calcutta are building and repairing ships, dredgers, barges and tugs. The Mazagon Docks has already completed (by November 1977) the fifth Leander class frigate for the Navy Under its expansion scheme, it has added two shipbuilding berths, an impounded Wet Dock capable of taking four medium-sized ships at a time, besides new production and assembly shops with modern machinery. It can now handle upto 60 ships a month for voyage repairs Garden Reach Shipbuilders and Engineers build ocean-going cargo ships upto 2,600 D.W T., large capacity dredgers, and other harbour craft like tugs and barges, besides seaward defence boats for the Navy. The Goa Shipyard, Ltd., is now capable of building barges upto 1,000 D.W.T , small dredgers, fishing trawlers, tugs and other harbour craft. The Mazagon Dock earned foreign exchange of the value of Rs 19 66 crores during 1976-77

The Bharat Dynamics, Ltd , Hyderabad incorporated in 1970 for the manufacture of anti-tank missiles in India commenced production with foreign collaboration in 1971 Since then, the undertaking has achieved 72 per cent indigenisation, besides, it has also been attempting to diversify its activities.

The Bharat Earthmovers, Ltd , Bangalore has a unit there which manufactures broad guage railway coaches, trailers, etc., and a second unit at Kolar Gold-fields which manufactures heavy earthmoving equipment

The Praga Tools, at Hyderabad, manufactures drilling tools, cutter grinders, surface grinders, milling machines, machine tool accessories and railway screw coupling, auto diesel spares, forgings and castings.

The Mishra Dhatu Nigam, Ltd , Hyderabad was incorporated in 1973 to set up indigenous capabilities for the manufacture of a wide

range of sophisticated and strategic special metals and super alloys, in various shapes and sizes, as required by several vital industrial sectors, such as nuclear energy, power generation, aeronautics, space, electronics, chemical engineering and instrument industries The factory is expected to go into production in early 1980.

Research and Development

The Defence Research and Development Organisation (DRDO) was established in 1958. Its principal responsibilities relate to the design and development of new and sophisticated weapons and equipment, based on the operational requirements projected by the Services, to provide help in their indigenous production and to render scientific advice to the three Services as needed (For details, see chapter "Scientific Research".)

TERRITORIAL ARMY

The Territorial Army, which was started in 1949, is designed to give the youth of the country an opportunity to receive military training in their spare time and to serve the country in times of emergency by providing units to the regular Army. It is a voluntary force of citizens and has units of Air Defence, Infantry, Signals, Engineers and Medical. It is not required to perform military service outside India save under a general or special order of the central government

All able-bodied nationals of India between the ages of 18 and 35 (with relaxation in the upper age limit for entry into certain technical units) and possessing the requisite qualifications are eligible to join the Territorial Army as an officer or other rank.

A limited number of appointments on the permanent staff, with a tenure of three to five years, are offered to all ranks of the Territorial Army provided they possess the necessary experience and qualifications Territorial Army personnel are also entitled to the award of decorations and medals.

NATIONAL CADET CORPS

The National Cadet Corps is a youth organisation entry to which is open to students of universities, colleges and schools on a voluntary basis. It aims at development of leadership, character, comradeship, spirit of sportsmanship and the ideal of service among the youth and creation of a force of disciplined and trained man-power which in a national emergency could be of assistance to the country. The cadets and the NCC commissioned officers have no liability for active military service. Adventure training and social service receive emphasis in the training being imparted to cadets.

NCC consists of three divisions—Senior, Junior and Girls. The present authorised strength of the corps in senior Division is four lakhs: Army 3,13,800, Navy-12,600, Air-11,600 and Girls-62,000. The Junior Division has an authorised strength of seven lakhs : Army-5,31,900, Navy-49,100, Air-52,000 and Girls-67,000.

WELFARE OF EX-SERVICEMEN

The Director-General of Resettlement in the Defence Ministry looks after the resettlement of ex-Servicemen in government and private services, vocational and technical trades, land colonies and transport services. A certain percentage of vacancies has been reserved by both the central and state governments for the ex-Servicemen. To encourage self-employment, several schemes are being implemented in stages These include establishment of ex-Servicemen's co-operative industrial estates in selected areas, setting up of industrial and shopping centres by using surplus military land, reservation of factory

plots and formation of special industrial projects. There are also other schemes in operation which train ex-Servicemen who prefer employment in professions needing background expertise and knowledge. These include training in industrial and agricultural skills, animal husbandry, teaching and social work.

An important organisation which assists ex-Servicemen and their families, in close liaison with the local administration, is the Soldiers', Sailors' and Airmen's Board. The Board, with its headquarters in New Delhi, co-ordinates the activities of the corresponding State Boards. A number of central funds like the Flag Day Fund, the Armed Forces Benevolent Fund and the Armed Forces Reconstruction Fund are also used for the rehabilitation of ex-Servicemen.

REHABILITATION OF WAR VICTIMS

Following the Indo-Pak war in December 1971, both the central and state governments formulated a number of schemes to extend benefits and facilities to the war-bereaved families, particularly the widows, the disabled and their dependents. A special organisation in the Ministry of Defence has been created to co-ordinate action on the various schemes. Among the important central schemes is one which allows liberal pension concessions for the widows and families of officers and men killed in action and for those disabled. The scheme, which came into operation from 1 February 1972, is more liberal than any scheme elsewhere in the world and covers all those affected in the military operations since the Pakistani aggression in Jammu and Kashmir in 1947. This apart, the central government is to meet the full cost of education up to the first degree of the dependents of all the personnel of the defence and para-military forces killed or permanently disabled. It will also bear the full cost of such dependents as have already taken up post-graduate courses.

Other schemes, which are in addition to existing concessions, relate to priority in obtaining employment under the central government and public undertakings Disabled servicemen are entitled to concessions in age, educational qualifications and medical standards. Up to two family members of each servicemen killed in action will be given Class III and Class IV jobs under the Ministry of Defence without registration at the Employment Exchanges. Seats have also been reserved for them in technical institutions A special Fund of Rs 5 crores has been created in the Ministry of Defence to meet those needs of war-bereaved families which cannot be met through the regular facilities extended by central and state governments.

State schemes include cash grants, ex-gratia allotment of land for agricultural purposes and residential plots on concessional rates

# 5 EDUCATION

The literacy rate in India has gone up from 16 6 per cent in 1951 to 29 45 per cent in 1971. Eighty seven per cent of children in the age group 6-11 are today at school as compared to 33 per cent two and a half decades ago Primary education is now free in all the states and compulsory in most of the states. There were about 9.5 crore students in schools in 1977 as against 2 35 crores in 1950-51. At the university stage, the number of students increased by about nine times and that of colleges more than six times

Education in India is primarily the responsibility of state governments but the union government has also been entrusted with certain responsibilities specified in the Constitution. These include co-ordination of educational facilities, determination of standards of higher education, scientific and technical education, research, and promotion of Hindi and all other Indian languages. Most of the educational development plans are formulated and implemented with some assistance from the central government, which is also responsible for the running of seven central universities of Aligarh, Banaras, Delhi, Hyderabad, Jawaharlal Nehru, North-Eastern Hill and Visva Bharati and other similar institutions. It also runs 242 Kendriya Vidyalayas (central schools) in different parts of the country. A special responsibility of the union government is the promotion of the education of the weaker sections

POLICY

The accepted recommendations of the Education Commission (1964-66) were incorporated in the National Policy Resolution (1958) and are under various stages of implementation by the central and state Governments and other organisations concerned with them. The key points are (i) free and compulsory education up to the age of 14; (ii) improved status, emoluments and education of teachers; (iii) three-language formula and development of regional languages; (iv) equalisation of educational opportunity and the promotion of science and research; (v) development of education for agriculture and industry, (vi) improvement in the quality and production of inexpensive text books; and (vii) investment of 6 per cent of the national income on education Emphasis was also laid on the spread of literacy, adult education and promotion of games and sports.

A conference of Education Ministers of states and union territories was held in New Delhi in August 1977 to discuss various matters concerning education The conference drew up five recommendations on the basis of a consensus They relate to (i) realisation of the goal of universal elementary education by the end of the Sixth Plan, (ii) a massive programme of adult education, (iii) implementation of the new pattern of education before the end of the Sixth Plan with suitable modifications in content, (iv) inclusion of education in the core sector of the Sixth Plan with priority for specific areas and (v) review of the National Policy on Education

PATTERN

The Education Commission had, however, suggested a uniform (10+2+3) pattern of 15 years' duration leading to the first degree (10 years of high school education, two years of higher secondary education and three years for the first degree course).

TABLE 5 1

ACHIEVEMENTS AND TARGETS AT DIFFERENT LEVELS OF EDUCATION

| | 1950-51 | 1955-56 | 1960-61 | 1965-66 | 1976-77 (likely) | Fifth Plan targets |
|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Number of pupils in classes I to V (lakhs) | 191 5 | 251 7 | 349 9 | 504 7 | 684 8 | 771 0 |
| Percentage thereof to total population in age group 6-11 | 42 6 | 52 8 | 62 4 | 76 7 | 87 0 | 95 7 |
| Number of pupils in classes VI to VIII (lakhs) | 31 2 | 42 9 | 67 0 | 105 3 | 172 1 | 211 0 |
| Percentage thereof to total population in age group 11-14 | 12 7 | 16 5 | 22 5 | 30 8 | 39 0 | 46 1 |
| Number of pupils in classes IX to XI/XII (lakhs) | 12 2 | 18 8 | 28 9 | 50 4 | 87 8 | 112 1 |
| Percentage thereof to total population in age group 14-17 | 5 3 | 7 4 | 10 6 | 16 2 | 22 0 | 26 1 |
| Number of pupils at the university stage arts, science and commerce (lakhs) | 3 6 | 6 3 | 8 9 | 14 9 | 40 84 | 46 5 |
| Percentage thereof to total population in age group 17-23 | 0 8 | 1 4 | 1 8 | 2 7 | 4 0 | 6 0 |
| Percentage of students reading science at university stage | 37 8 | 33 0 | 26 9 | 29 5 | — | — |
| Number of primary/Junior basic schools | 2,09,671 | 2,78,135 | 3,30,399 | 3,91,064 | 4,66,264 | — |
| Number of middle/senior basic schools | 13,596 | 21,730 | 49,663 | 75,798 | 93,904 | — |
| Number of high/higher secondary schools | 7,288 | 10,838 | 17,257 | 27,477 | 41,298 | — |
| Number of Multipurpose schools | — | 255 | 2,115 | 2,386 | — | — |
| Number of training schools | 782 | 930 | 1,138 | 601 | 328 | — |
| Number of training colleges | 53 | 107 | 478 | 1,272 | 1,244* | — |
| Number of arts, science (including research institutions) and commerce colleges | 542 | 772 | 1,122 | 1,788 | 3,253 | — |
| Number of Universities | 27 | 32 | 45 | 64 | 105 | — |
| Number of teachers | | | | | | |
| Primary Schools | 5,37,918 (58 8) | 6 91,249 (61 2) | 7,41,515 (64 1) | 9,44,377 (70 5) | 13,36,104 (85 5) | — |
| Middle Schools | 85,496 (53 3) | 1,48,394 (58 5) | 3,45,228 (66 5) | 5,27,754 (76 9) | 7,12,118 (86·1) | — |
| High/Higher Secondary Schools | 1,26,504 | 1,89,794 | 2,96,305 | 4,79,060 | 7,39,416 | — |
| Universities, arts and science colleges | 18,648 | 27,883 | 41,759 | 66,882 | — | — |

*Figures relate to 1974-75

NOTE —Figures in brackets represent the percentage of trained teachers

The new pattern has been adopted in Andhra Pradesh, Assam. Bihar, Gujarat, Jammu and Kashmir, Karnataka, Kerala, Maharashtra, Sikkim, Tamil Nadu, Tripura and West Bengal among states and Andaman and Nicobar islands, Arunachal Pradesh, Chandigarh, Dadra and Nagar Haveli, Delhi, Goa, Daman and Diu and Lakshadweep and Pondicherry among union territories. The states of Bihar, Haryana, Himachal Pradesh, Manipur, Nagaland, Orissa, Punjab, Rajasthan and U.P. propose to adopt the new pattern from 1978-79/1979-80 The matter is under consideration in other states and union territories.

PLANS AND EDUCATION

In the two decades of planned development since 1951, the number of educational institutions has more than double. The number of teachers and students has gone up by about three times. The achievements during the last two decades and targets of the Fifth Plan are given in table 5 1. Expenditure on education also went up from Rs 153 crores in the Firth Plan to Rs 786 crores in the Fourth Plan The proposed outlay for the Fifth Plan is Rs 1,285 crores Table 5 2 gives details of the expenditure

TABLE 5 2
EXPENDITURE ON EDUCATION IN FOUR PLANS AND OUTLAY FOR FIFTH PLAN

| Major Heads | Fourth Plan | | | Fifth Plan | |
|---|---|---|---|---|---|
| | First three plans | Expenditure (Rs crores) | Percentage | Outlay (Rs crores) | Percentage |
| (1) | (2) | (3) | (4) | (5) | (6) |
| Elementary Education | | 239 | 30 4 | 410 | 31 9 |
| Secondary Education | 556 0 | 140 | 17 8 | 250 | 19 5 |
| University Education | 149 0 | 195 | 24 8 | 292 | 22 7 |
| Social Education | 11 0 | 45 | 0 6 | 18 | 1 4 |
| Cultural Programmes | 10 0 | 12 | 1 5 | 37 | 2 8 |
| Other Educational Programmes | 96 0 | 89 5 | 11 4 | 122 | 9 5 |
| TOTAL | | | | | |
| General Education | 822 0 (84 7) | 680 | 86 5 | 1,129 | 87 8 |
| Technical Education | 194 0 (15 3) | 106 | 13 5 | 156 | 12 2 |
| GRAND TOTAL | 1,016 0 | 786 | 100 0 | 1285 | 100 0 |

Broadly speaking, the Fourth Plan aimed at making progress towards implementing the Constitutional Directive of free and compulsory education for the age group 6-14. At secondary and higher stages of education more emphasis was laid on consolidation and diversification so as to meet the diverse needs of trained manpower of requisite standard. Table 5 3 shows the enrolment in 1969-70, achievements in 1973-74 and targets for 1975-76.

TABLE 5·3
ENROLMENT TARGETS AND ACHIEVEMENTS IN FOURTH AND FIFTH PLANS

| Age Groups | | 1969-70 | 1973-74 | Fifth Plan target 1978-79 | 1976-77 (Likely) position |
|---|---|---|---|---|---|
| (1) | | (2) | (3) | (4) | (5) |
| 6-11 Classes I—V | Boys | 347 70 (95) | 396 83 (100) | 463 (111) | 422·23 (103) |
| | Girls | 207 16 (50) | 240 36 (65) | 308 (79) | 262 56 (69) |
| | TOTAL | 554 86 (73) | 637 19 (84) | 771 (96) | 684·79 (87) |
| 11—14 Classes VI—VIII | Boys | 92 75 (47) | 105 14 (47) | 140 (59) | 117·49 (51) |
| | Girls | 37 04 (20) | 45·31 (21) | 71 (32) | 54·62 (26) |
| | TOTAL | 129 79 (34) | 150 45 (35) | 211 (46) | 172 12 (39) |
| 14—17 Classes IX—XII | Boys | 47·24 (27) | 54 06 (28) | 80 4 (36) | 62·98 (29) |
| | Girls | 16 06 (10) | 20 69 (11) | 31 7 (15) | 24 77 (12) |
| | TOTAL | 63 30 (18) | 74 75 (20) | 112 1 (26) | 87·75 (22) |
| 17—23 University Stage | TOTAL | 22 37 | 31·71 | 46 5 | 40 84 |

*Source* · Ministry of Education & Social Welfare

NOTE : Enrolment ratio has been worked out on the basis of old population projections, figures in brackets indicate enrolment as percentage of the population of the relevant age-groups

The Fifth Plan lays emphasis on (i) ensuring equality of educational opportunities as part of the overall plan of ensuring social justice; (ii) establishing closer links between the pattern of education, on the one hand, and the needs of development and the employment market, on the other; (iii) improvement of the quality of education imparted; and (iv) involvement of the academic community, including students, in the tasks of social and economic development.

ELEMENTARY EDUCATION

Under a Directive Principle of State Policy, free and compulsory education is to be provided for all children up to the age of 14. In pursuance of this directive, all states have introduced free education for children in the age group 6-11. It is also free for children in the age group 11-14 in all states except Orissa, Uttar Pradesh and West Bengal Even in these states, girl students and students from backward communities get free education

All states have compulsory Primary Education Acts except Manipur, Meghalaya, Nagaland, Sikkim and Tripura. Of the union territories, Andaman and Nicobar Islands, Chandigarh and Delhi have such legislation. However, even where such legislation exists, penal clauses are seldom enforced because of socio-economic reasons. Ins-

tead, incentives such as mid-day meals, free books and uniforms are provided to attract children to school

SECONDARY EDUCATION

Education is free up to the secondary stage in Andhra Pradesh, Gujarat, Karnataka, Kerala, Tamil Nadu, Andaman and Nicobar Islands, Arunachal Pradesh and Lakshadweep and in government institutions in Jammu and Kashmir, Nagaland, Dadra and Nagar Haveli and Pondicherry. It is free for girls in Madhya Pradesh, Manipur, Orissa, Rajasthan, Tripura, and Uttar Pradesh. Children belonging to the scheduled castes and tribes get free education in all the states.

UNIVERSITY AND HIGHER EDUCATION

Higher Education is imparted mainly through universities established either under Acts of Parliament or those of State Legislatures and through a large number of Arts, Science, Commerce and Professional Colleges affiliated to them Besides, there are research in several specialised fields and other institutions which are deemed to be universities under the University Grants Commission Act, 1956. There are, at present, 105 universities, 9 Institutions of National Importance and 10 Institutions deemed to be Universities

University Grants Commission

The University Grants Commission, set up in 1953, promotes and co-ordinates university education and determines and maintains standards of teaching, examination and research in the universities. It has the authority to enquire into the financial needs of the universities and to make appropriate grants to different universities and implement development schemes It advises on the establishment of new universities and other matters referred to it.

VOCATIONAL AND TECHNICAL EDUCATION

Vocational and technical education is provided at school and higher levels. Most of the states have institutions for vocational and technical education at the secondary and higher secondary levels. These provide training in agriculture, commerce, engineering, forestry, medicine, animal husbandry, arts and crafts and primary school teacher training The Industrial Training Institutes under the union Ministry of Labour and state labour departments also train persons who have read at least up to 8th or 9th standards. There are also junior technical schools which prepare students especially for the engineering trades A few pre-vocational training centres are also being conducted on an experimental basis with assistance from UNICEF and ILO.

Five national institutions at Bombay, Kanpur, Bharagpur, Madras and New Delhi provide facilities for high level of education and research in engineering and technology. These institutions admit about 7200 students annually to under graduate courses. Besides, these institutions along with the Indian Institute of Science, Bangalore, admit nearly 2,000 students every year to the post-graduate and 1.500 research scholars In addition, 60 other engineering colleges and university departments offer facilities for post-graduate courses and research with an annual intake of about 2,500 students There are also 14 regional engineering colleges and a number of other technological institutions and polytechnics providing facilities for education in various branches of engineering and technology. For specialised courses such as mining and metallurgy, industrial engineering, forge and foundry and architecture, number of centres have been established. To integrate engineering education with practical training, a number

**LITERACY**

In 1951, only 16 6 per cent of the people in India could read and write. The percentage went up to 24.0 in 1961 and to 29.45 in 1971. According to the 1971 census (see table 5.5), Kerala had the highest literacy rate, 69.75 per cent, Tamil Nadu and Maharashtra came next with 45.77 and 45.40 per cent respectively. Chandigarh led the union territories with a percentage of 70.43. Despite the rise in the literacy rate and the total number of literates, the number of illiterates has increased from 33.4 crores in 1961 to 38.6 crores in 1971 due to fast growing population. Rural folk and women form the bulk of illiterates. In 1971, more than half the people, nearly 60 per cent, were literate in urban areas, whereas less than one-fourth of the rural population, 27.89 per cent, was literate Kerala topped the states in women's literacy also, the percentage being 62.53. Tamil Nadu with 31.00 and Maharashtra with 30.92 came second and third respectively. Among the union territories, first place was held again by Chandigarh with 63.15 per cent.

**RURAL HIGHER EDUCATION**

The scheme of Rural Higher Education was launched in 1956 with the object of providing higher education, after the secondary stage, to the rural youth and inculcating in them a spirit of service to the community and sympathy for the rural way of life, besides training them for careers in the rural development programmes of the central and state governments. The National Council for Rural Higher Education advises the central government on the development of rural higher education. At present, 10 rural institutes are functioning at Coimbatore and Gandhigram (Tamil Nadu), Udaipur (Rajasthan), Birouli (Bihar), Bichpuri (Uttar Pradesh), Amravati, Gargoti and Wardha (Maharashtra), Taranur (Kerala) and Indore (Madhya Pradesh). Most of these are affiliated to the state universities.

**Scholarships for Foreign Students**

Foreign students are offered scholarships for higher education and training in India under various schemes Under the General Cultural Scholarship Scheme, the Government awards 180 scholarships every year to the nationals of selected African, Asian and other foreign countries. At present about 760 scholars are studying in different universities and other institutions in India. Scholarships have been awarded in the fields of agriculture, engineering and technology, medicine, pharmacy, arts and humanities. Under a scheme formulated in 1972-73, 100 scholarships were awarded to the nationals of Bangladesh At present about 196 such students are pursuing their studies in India. Scholarships are also awarded to nationals of those countries with whom India has Cultural Exchange Agreements Other schemes include Reciprocal Scholarship Scheme, Commonwealth Scholarships/Fellowship Plan—Indian Awards and Technical Co-operation Scheme of the Colombo Plan.

**RESEARCH AND TRAINING**

The National Council of Educational Research and Training (NCERT) which was established in 1961 acts as the principal academic adviser to the Ministry of Education on matters pertaining to school education and undertakes the implementation of the policies and programmes of the Ministry. The Council works in cooperation with the state education departments and universities and other institutions for promoting school education It also maintains close contacts with international organisations. The results of the investigations conducted

TABLE 5 5

EFFECTIVE LITERACY RATES, 1971 FOR INDIA, STATES & UNION TERRITORIES

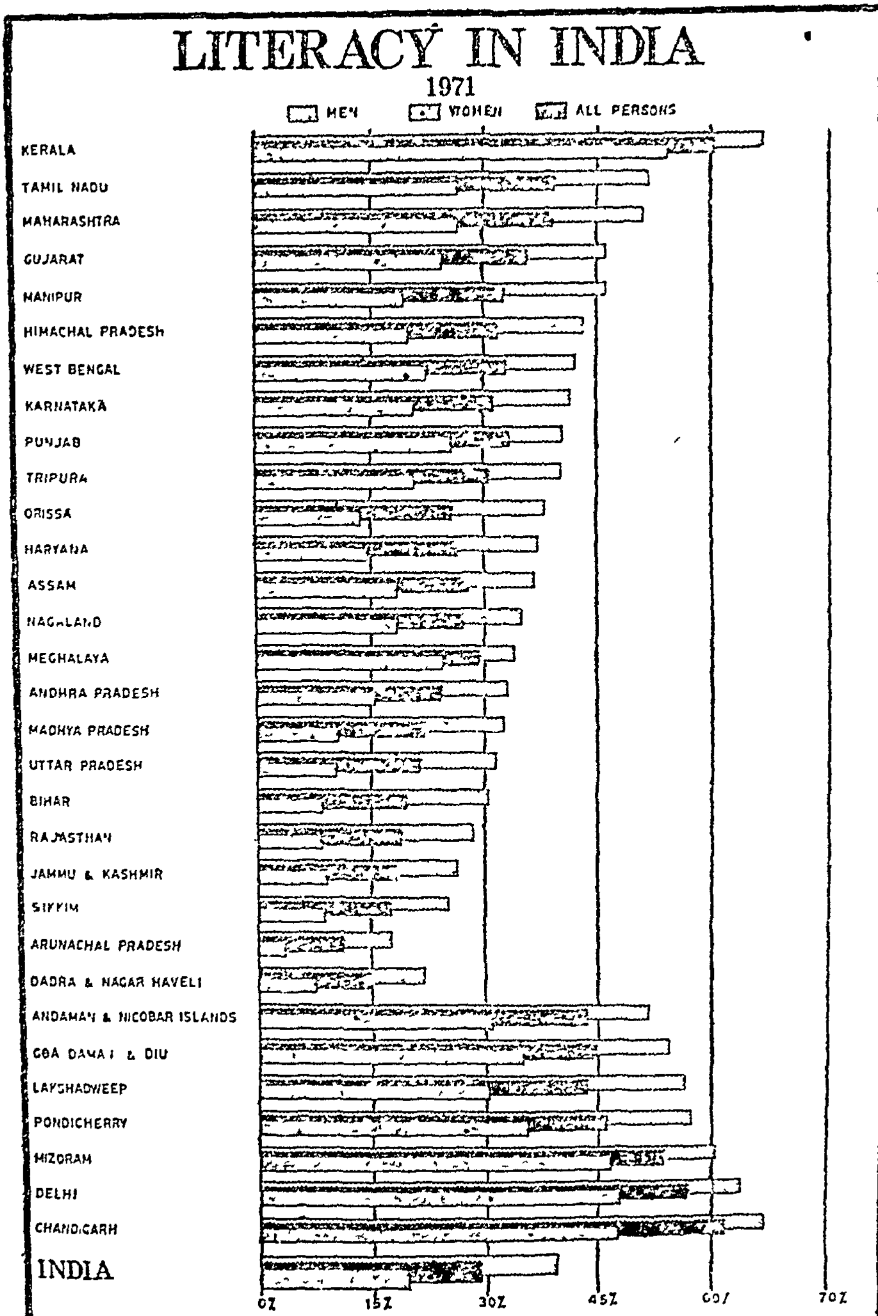
| State/Union Territory | | Total Population | | | Total Literates | | | Percentage of Literacy | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | P | M | F | P | M | F | P | M | F |
| 1 2 | | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| INDIA | T | 46,86,03,089 | 24,38,48,803 | 22,47,54,286 | 16,14,14,962 | 11,20,43,411 | 49,371,551 | 34,45 | 45 95 | 21,97 |
| | R | 37,35,91,396 | 19,23,13.231 | 18,12,78,165 | 10,41,97,380 | 7,60,57,547 | 28,13,98,33 | 27 89 | 39.55 | 15 52 |
| | U | 9,50,11.093 | 5,15.35.572 | 4,34,76,121 | 5,72,17,582 | 3,59,85,864 | 21.23,27,18 | 60 22 | 69 83 | 48 84 |
| 1 Andhra Pradesh | T | 3,74,85,068 | 1,90,03,347 | 1,84,81,821 | 1,06,89,665 | 7,30,32,97 | 3,38,63,68 | 28 52 | 38 43 | 18 32 |
| | R | 3,01,97,605 | 1,52,56,896 | 1,49,40,709 | 6,73,39,98 | 4,83,35,60 | 1,90,04,38 | 22 30 | 31 68 | 12 72 |
| | U | 72,87,463 | 37,46,351 | 35,41,112 | 39,55,667 | 24,69,737 | 1,48,59,30 | 54 28 | 65 92 | 41 96 |
| 2 Assam[2] | T | 1,24,13,545 | 66,19,005 | 57,94,540 | 42,95,564 | 29,32,566 | 1,36,29,98 | 34 60 | 44 31 | 23 52 |
| | R | 1,12,51,488 | 59,44,342 | 53,07,146 | 35,16,729 | 24,42,990 | 1,07,37,39 | 31 26 | 41·10 | 20 23 |
| | U | 11,62,057 | 6,74,663 | 4,87,394 | 7,78,845 | 4,89,576 | 28,92,59 | 67 02 | 72 53 | 59 35 |
| 3 Bihar | T | 4,81,31,372 | 2,47,04,179 | 2,34,27,193 | 1,12,37,613 | 88,39,395 | 2,39,82,18 | 23 35 | 35 78 | 10 24 |
| | R | 4,32,47,726 | 2,19,68,524 | 2,12,79,202 | 87,07,072 | 71,11,190 | 1,59,58,82 | 20·13 | 32 37 | 7 50 |
| | U | 48,83,646 | 27,35,655 | 21,47,991 | 25,30,542 | 17,28,205 | 80,23,36 | 51 82 | 63 17 | 37 35 |
| 4 Gujarat | T | 2,28,38,394 | 1,18,32,989 | 1,10,05,405 | 95,55,238 | 63,63,748 | 3,19,14,90 | 41 84 | 53 78 | 29 00 |
| | R | 1,63,28,767 | 83,79,005 | 79,49,762 | 54,39,395 | 38,31,076 | 1,60,83,19 | 33 31 | 45 72 | 20 23 |
| | U | 65,09,627 | 34,53,984 | 30,55,643 | 41,15,843 | 25,32,672 | 1,58,31,71 | 63 23 | 73 33 | 51 81 |
| 5. Haryana | T | 64,59,151 | 45,56,018 | 39,03,133 | 26,99,179 | 20,05,424 | 69,37,55 | 31 91 | 44,02 | 17,77 |
| | R | 69,23,710 | 37,23,662 | 32,00,048 | 17,94,925 | 14,39,614 | 35,53,11 | 25 92 | 38 66 | 11 10 |
| | U | 15,35,441 | 8,32,356 | 7,08,085 | 9,04,254 | 5,65,810 | 33,84,34 | 58 89 | 67 98 | 48 14 |
| 6 Himachal Pradesh | T | 29,64,464 | 15,16,749 | 14,47,715 | 11,05,825 | 7,63,192 | 34,26,33 | 37 30 | 50 32 | 23 67 |
| | R | 27,51,254 | 13,93,170 | 13,58,084 | 9,59,375 | 6,70,836 | 28,85,39 | 34 87 | 48 15 | 21·25 |
| | U | 2,13,210 | 1,23,579 | 89,631 | 1,46,450 | 92,356 | 5,40,94 | 68 69 | 74 74 | 60·35 |
| 7. Jammu and Kashmir | T | 39,52,135 | 21,20,546 | 18,31,589 | 8,57,964 | 6,57,660 | 20,03,04 | 21 71 | 31·01 | 10 94 |
| | R | 31,99,819 | 17,14,308 | 14,85,511 | 5,30,354 | 4,42,635 | 8,77,19 | 16 57 | 25 82 | 5 90 |
| | U | 7,52,316 | 4,06,238 | 3,46,078 | 3,27,610 | 2,15,025 | 11,25,85 | 43·55 | 52 93 | 32 53 |
| 8. Kerala | T | 1,84,91,971 | 91,46,093 | 93,45,878 | 1,28,98,072 | 70,54,096 | 5,84,39,76 | 69 75 | 77·13 | 62·53 |
| | R | 1,54,64,074 | 76,31,780 | 78,32,294 | 1,05,99,409 | 58,04,787 | 4,79,46,22 | 68 54 | 76 06 | 61·22 |
| | U | 30,27,897 | 15,14,313 | 15,13,584 | 22,98,663 | 12,49,309 | 1,04,93,54 | 75·92 | 82 50 | 69 33 |

1. Excluding 0-4 age groups.
2. Includes Mizo District, non constituted Union Territory of Mizoram

T = Total; R = Rural; U = Urban

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 Madhya Pradesh | T | 3,49,71,312 | 1,81,00,306 | 1,68,71,006 | 92,23,084 | 70,16,655 | 2,20,64,29 | 26 37 | 38 77 | 13 08 |
| | R | 2,91,87,288 | 1,49,79,538 | 1,42,07,750 | 58,61,418 | 48,20,815 | 1,04,06,03 | 20 08 | 32 18 | 7·32 |
| | U | 57,84,024 | 31,20,768 | 26,63,256 | 33,61,666 | 21,95,840 | 1,16,58,26 | 58·12 | 70 36 | 43·77 |
| 10 Maharashtra | T | 43,157,442 | 22,443,287 | 20,714,155 | 19,752,608 | 13,331,079 | 64,215,29 | 45 77 | 59 40 | 31 00 |
| | R | 29,449,26 | 14,827,390 | 14,622,336 | 10,628,699 | 7,556,382 | 30,723,17 | 36 09 | 50 95 | 21·01 |
| | U | 13,707,516 | 7,615,897 | 6,091,619 | 9,123,909 | 5,774,697 | 33,492,12 | 66 56 | 75 82 | 54 98 |
| 11. Manipur | T | 917,845 | 4,644,03 | 453,442 | 353,090 | 219,383 | 103,707 | 38 47 | 53 70 | 22 87 |
| | R | 794,973 | 402,206 | 392,767 | 277,756 | 202,371 | 753,85 | 31 94 | 50 32 | 19·19 |
| | U | 122,872 | 62,197 | 60,675 | 75,334 | 47,012 | 283,22 | 61 31 | 75 59 | 46 68 |
| 12 Meghalaya | T | 850,833 | 439,603 | 411,230 | 298,312 | 177,772 | 1,205,40 | 35 06 | 40 44 | 29·31 |
| | R | 721,910 | 369,131 | 352,779 | 202,327 | 122,220 | 801,07 | 23 03 | 33 11 | 22·71 |
| | U | 128,923 | 70,472 | 58,451 | 95,985 | 35,558 | 404,33 | 74 45 | 78 83 | 69 17 |
| 13 Mysore | T | 25,077,251 | 12,844,451 | 12,232,800 | 9,235,127 | 6,231,363 | 30,037,61 | 36 83 | 48 51 | 24·55 |
| | R | 18,903,331 | 9,600,567 | 9,302,764 | 5,572,190 | 3,982,775 | 1,589,41 | 529 48 | 41 18 | 17 09 |
| | U | 6,173,920 | 3,243,884 | 2,930,036 | 3,662,937 | 2,248,588 | 14,143,49 | 59 33 | 69 32 | 48 27 |
| 14 Nagaland | T | 4,51,806 | 213,836 | 207,970 | 141,518 | 96,691 | 448 37 | 31 32 | 39 65 | 21 56 |
| | R | 406,742 | 212,034 | 194,708 | 110,277 | 73,593 | 366 84 | 27·11 | 34 71 | 18 84 |
| | U | 45,064 | 31,802 | 13,262 | 31,241 | 23,098 | [illegible],15 | 69 33 | 72 60 | 61 48 |
| 15 Orissa | T | 18,819,069 | 9,501,641 | 9,317,428 | 5,745,369 | 4,227,806 | 1,517,59 | 330 53 | 44 50 | 16 29 |
| | R | 17 233,213 | 8,638,307 | 8,600,906 | 4,841,154 | 3,628,327 | 1,212,857 | 28 09 | 42 03 | 14 10 |
| | U | 1,585,856 | 869,334 | 716,522 | 904,215 | 599,479 | 304,776 | 57 02 | 68 96 | 42 53 |
| 16 Punjab | T | 11,791,168 | 6,347,946 | 5,443,222 | 4,562,123 | 2,931,281 | 16,278,42 | 38 69 | 46·22 | 29 91 |
| | R | 8,976,133 | 4 824,903 | 4,151,235 | 2,873,903 | 1,919,556 | 9,543,17 | 32 68 | 39 78 | 22 99 |
| | U | 2,315,030 | 1,523,043 | 1,291,987 | 1,688,220 | 1,011,695 | 6,735,25 | 69 97 | 66 62 | 52 13 |
| 17 Rajasthan | T | 21,770,367 | 11,440,534 | 10,329,833 | 4,914,293 | 3,875,135 | 10,368,54 | 22 57 | 33 87 | 10 06 |
| | R | 17,883,567 | 9,355,310 | 8,528,257 | 2,939,348 | 2,529,573 | [illegible]691,75 | 16 44 | 27 04 | 4 80 |
| | U | 3,886,800 | 2,085,224 | 1,801,576 | 1,974,945 | 1,345,562 | 6,297 93 | 50 81 | 64·53 | 31 91 |
| 18. Sikkim | T | 184,099 | 100,205 | 83,894 | 37,230 | 28,574 | 86 51 | 20 22 | 28 52 | 10 31 |
| | R | 166,975 | 89,831 | 77,144 | 28,149 | 22,320 | 58 29 | 16 56 | 21 85 | 7 56 |
| | U | 17,124 | 10,374 | 6,750 | 9,081 | 6,254 | 28,22 | 53 03 | 60·31 | 41 81 |
| 19. Tamil Nadu | T | 35,809,975 | 18,112,317 | 17,697,658 | 16,256,393 | 10,753,783 | 54,726,10 | 45 10 | 59 51 | 30 92 |
| | R | 24,929,522 | 12,521,901 | 12,407,621 | 9,231,587 | 6,518,218 | 27,133,69 | 37 03 | 53 05 | 21 87 |
| | U | 10,880,453 | 5,590,416 | 5,290,037 | 7,021,806 | 4,235,565 | 27,592,41 | 64 56 | 76 20 | 52 16 |
| 20 Tripura | T | 1,331,995 | 687,556 | 644,439 | 482,052 | 322,017 | 1,600,65 | 36 19 | 46 84 | 21·91 |
| | R | 1,188,528 | 613,163 | 575,365 | 378,119 | 261 261 | 1,168,88 | 31 52 | 42 61 | 20·32 |
| | U | 75,379,971 | 40,371,404 | 660,74 | 103,933 | 60,756 | 431,77 | 72 11 | 81 67 | 62 51 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 21 Uttar Pradesh | T | 75,379,871 | 40,371,404 | 35,008,467 | 19,173,970 | 14,812,311 | 43,616,59 | 25 44 | 36 69 | 12 46 |
| | R | 64,683,178 | 34,439,343 | 30,243,835 | 13,769,262 | 11,269,375 | 24,998,87 | 21 29 | 32 72 | 8 27 |
| | U | 10,696,693 | 5,932,061 | 4,764,632 | 5,404,708 | 5,404,708 | 3,542,936 | 50 53 | 59 73 | 39 07 |
| 22 West Bengal | T | 37,856,092 | 20,239,066 | 17,617,026 | 14,711,739 | 10,031,891 | 46,79,848 | 38 ·86 | 49 57 | 26 56 |
| | R | 28,002,244 | 14,544,403 | 13,457,841 | 8,577,954 | 6,148,637 | 24,29,317 | 30 63 | 42 27 | 18 06 |
| | U | 9,853,848 | 5,694,663 | 4,159,185 | 6,133,785 | 3,883,254 | 22,50,531 | 62 25 | 68 19 | 54 11 |
| 23 Andaman & Nicobar Islands | T | 98,126 | 61,478 | 36,648 | 50,191 | 36,160 | 14,031 | 51 15 | 58 82 | 38 29 |
| | R | 75,013 | 46,202 | 28,811 | 34,059 | 24,895 | 9,164 | 45 40 | 53 88 | 31 81 |
| | U | 23,113 | 15,276 | 7,837 | 16,132 | 11,265 | 4,867 | 69 80 | 73 74 | 62 10 |
| 24 Arunachal Pradesh | T | 398,085 | 217,066 | 181,019 | 52,791 | 44,776 | 8,015 | 13 26 | 20 63 | 4 43 |
| | R | 383,017 | 206,309 | 176,708 | 44,067 | 37,744 | 6,323 | 11 51 | 18 29 | 3 58 |
| | U | 15,068 | 10,757 | 4,311 | 8,724 | 7,032 | 1,692 | 57 90 | 65 37 | 39 25 |
| 25. Chandigarh | T | 224,849 | 130,037 | 94,812 | 158,371 | 98,495 | 59,876 | 70 43 | 75 74 | 63 ·15 |
| | R | 20,975 | 12,661 | 8,314 | 7,422 | 5,610 | 1,812 | 35 38 | 44 31 | 21 79 |
| | U | 203,874 | 117,376 | 86,498 | 150,949 | 92,885 | 58,064 | 74 04 | 79 13 | 67 13 |
| 26 Dadra & Nagar Haveli | T | 61,877 | 30,569 | 30,708 | 11,105 | 8,188 | 2,917 | 18 12 | 26 79 | 9 50 |
| | R | 61,277 | 20,569 | 30,708 | 11,105 | 8,188 | 2,917 | 18 12 | 26 79 | 9 50 |
| | U | — | — | — | — | — | — | — | — | — |
| 27 Delhi . . | T | 3,536,396 | 1,982,459 | 1,553,937 | 2,301,605 | 1,438,268 | 8,63,337 | 65 08 | 72 55 | 55 56 |
| | R | 350,438 | 193,708 | 156,730 | 151,690 | 112,413 | 39,277 | 43 29 | 58 03 | 25 06 |
| | U | 3,185,958 | 1,788,751 | 1,397,207 | 2149,915 | 1,325,855 | 8,24,060 | 67 48 | 74 12 | 58 98 |
| 28 Goa, Daman & Diu | T | 745,700 | 374,023 | 271,677 | 383,864 | 234,178 | 1,49,686 | 51 48 | 62 61 | 40 27 |
| | R | 547,188 | 268,188 | 279,000 | 256,135 | 156,710 | 99,425 | 46 81 | 58 43 | 35 ·64 |
| | U | 198,512 | 105,835 | 92,677 | 127,729 | 77,468 | 50,261 | 64 34 | 73 20 | 54 23 |
| 29 Laccadive Minicoy & Amindivi Islands | T | 26,832 | 13,488 | 13,344 | 13,889 | 9,081 | 4,808 | 51 76 | 67 ·33 | 36 03 |
| | R | | 13,488 | 13,344 | 13,889 | 9,081 | 4,808 | 51 76 | 67 ·33 | 36 03 |
| | U | — | — | — | — | — | — | — | — | — |
| 30 Pondicherry | T | 406,599 | 204,302 | 202,297 | 217,058 | 135,851 | 81,207 | 53 38 | 66 50 | 40 14 |
| | R | 234,678 | 118,392 | 116,286 | 105,553 | 70,465 | 35,088 | 44.98 | 59·52 | 30·17 |
| | U | 171,921 | 85,910 | 86,011 | 111,585 | 65,386 | 46,199 | 64 86 | 76 11 | 53 ·62 |


LITERACY IN INDIA
1971
MEN
WOMEN
ALL PERSONS
KERALA
TAMIL NADU
MAHARASHTRA
GUJARAT
MANIPUR
HIMACHAL PRADESH
WEST BENGAL
KARNATAKA
PUNJAB
TRIPURA
ORISSA
HARYANA
ASSAM
NAGALAND
MEGHALAYA
ANDHRA PRADESH
MADHYA PRADESH
UTTAR PRADESH
BIHAR
RAJASTHAN
JAMMU & KASHMIR
SIKKIM
ARUNACHAL PRADESH
DADRA & NAGAR HAVELI
ANDAMAN & NICOBAR ISLANDS
GOA DAMAN & DIU
LAKSHADWEEP
PONDICHERRY
MIZORAM
DELHI
CHANDIGARH
INDIA
0%
15%
30%
45%
60%
70%

by the Council are made available to the public through books, journals and other literature.

The Council has the National Institute of Education at New Delhi, a research organisation which consists of various academic departments and units. The Council also runs four regional Colleges of Education at Ajmer, Bhopal, Bhubaneswar and Mysore. These colleges promote and participate in a large number of extension activities in the field of school education and conduct Summer Institutes, particularly for science teachers.

The Council also maintains a network of 18 Field Offices to keep a close liaison with state governments. These field offices keep the Council informed of the programmes under implementation in the states and assist the states in utilising the work done by the Council, especially in the field of curriculum development. The Council has also developed the new curriculum and syllabi for classes I to XII for the 10+2+3 pattern of education. The Council brings out model textbooks in all the subjects at the school stage in English and Hindi. These books are used in the states in adapted/adopted form. The Council brings out three journals in the field of school education.

The Council also runs a centre for educational technology at New Delhi It was set up in 1972-73 for undertaking research and development work in the effective production and utilisation of media in education, development of appropriate technology and delivery systems, carrying out training programmes relating to various aspects of educational technology and evaluation of educational materials.

**Indian Council of Historical Research**

The Indian Council of Historical Research, New Delhi, set up in 1972, enunciates and implements a national policy of historical research and encourages scientific writing of history. It acts as a forum for historians for exchange of views. It operates research projects, offers fellowships and publishes thesis, monographs and translated source materials and important history books.

**Indian Institute of Advanced Study**

The Indian Institute of Advanced Study, Simla, set up in 1965, is a Centre for advance research in the Humanities, Social Sciences and Natural Sciences.

It is a community of scholars engaged in exploring new frontiers of knowledge aimed at making major conceptual developments and at offering inter-disciplinary perspectives on questions of contemporary relevance. An essential part of the Institute's activities is the organisation of seminars and workshops in which outstanding scholars and experts are invited. To ensure speedy and wide dissemination of the contents and conclusions of seminars and workshops and of research findings, the Institute operates its publication programmes which include transactions of the Institute, monographs and occasional papers.

**DEVELOPMENT OF HINDI**

The central Ministry of Education runs several programmes for the enrichment and spread of Hindi. Among these are: (a) evolution and finalisation of Hindi terminology; (b) preparation of dictionaries; (c) preparation of linguaphone records, language lessons and tapes; and (d) publication of popular books in collaboration with private publishers. For the spread of Hindi, the activities include (i) rendering financial assistance to governments of non-Hindi speaking states for the training and appointment of Hindi teachers in their schools; (ii) encouraging the learning of Hindi on voluntary basis through

correspondence courses; (iii) providing financial assistance to voluntary organisations in non-Hindi speaking states for holding Hindi teaching classes; (iv) giving awards to Hindi writers belonging to non-Hindi speaking states; and (v) propagation of Hindi in other countries. Through the Kendriya Hindi Sansthan, Agra, the central government promotes the development of improved methodolgy for teaching Hindi to non-Hindi speaking students, preparation of suitable teaching materials, and development of improved teaching methods. Through the Central Hindi Directorate, the government runs programmes relating to the publication of Hindi books and their free distribution in non-Hindi speaking states.

MODERN INDIAN LANGUAGES

Under the scheme for the development of modern Indian languages, the central government gives financial assistance to voluntary organisations for bringing out publications like encyclopaedias, dictionaries, books of knowledge and books of scientific interest. Grants are given for holding literary conferences, seminars and exhibitions for the development of Indian languages Assistance is also given by way of purchasing copies of printed publications. State governments are given special help for the production of university-level books in regional languages. *A Taraqui-e-Urdu* Board has been set up for the production of educative literature in Urdu. A scheme for the publication of such books in Sindhi is also in operation.

The government also provides facilities for the study of languages other than the mother-tongue. For this, the Central Institute of Indian Languages, Mysore, develops improved teaching methodology, prepares teaching materials and trains second language teachers at the Regional Language Centres of the Institute The Institute also conducts research necessary for this purpose. The study of tribal languages is one of its important functions.

Foreign Languages Institute

*The Central Institute of English and Foreign Languages, Hyderabad,* trains teachers in the teaching of English and foreign languages, development of teaching methodology and of teaching materials for use by Indian teachers and students of these languages. A regional centre has been set up at Shillong for accelerating its activities in the eastern region. From July 1973, the Institute is deemed to be a university.

## YOUTH SERVICES

The main objectives of the central government's youth policy are to provide opportunities to young people to make constructive contribution to society, fulfil youth aspirations by providing avenues for young people to be actively involved in the national mainstream and enable them to contribute fruitfully in the task of national reconstruction

Nehru Yuvak Kendras

To mobilise student and non-student youth for constructive nation building activities, youth centres known as Nehru Yuvak Kendras have been established at district headquarters other than metropolitan areas. The activities of these centres include informal education for young people in the age group 15-25 and their participation in creative activities, development of competitive sports, physical education, encouragement of talent in the field of sports, particularly in the rural

areas and community service involving youth participation in eradication of illiteracy, health, education and sanitation programmes and help in carrying out land reforms.

National Service Scheme

The National Service Scheme (NSS), launched in 1969, aims at providing under-graduate students with opportunities for meaningful social service benefitting the community in a variety of fields. Such activities include youth participation in organising literacy classes, constructive development work with a potential of creating community assets, youth involvement in relief operations, slum clearance and organisation of mobile hospital service. During 1976-77 about 2.78 lakh students participated in the scheme.

SPORTS AND GAMES

In the field of sports and games, the policy is to broad-base the scope of selection and training of potential talent and sportsmen and to lay the foundation of a-mass base for participation of young people through competitive sports. Scholarships are awarded at national and state-levels to talented school boys and non-student youth who excel in national and state level and rural sports competitions.

All India Council of Sports

The All India Council of Sports advises the central government on matters relating to sports, games and physical education. In consultation with the Council, the government provides financial assistance to the National Sports Federations/Associations for purchase of equipment, visits of Indian sports teams abroad and *vice versa,* organisation of national championships and establishment of rural sports centres. Financial assistance is also provided to state sports councils for the construction of stadia and swimming pools, organisation of annual coaching camps and establishment of rural sports centres.

National Sports Organisation

The National Sports Organisation aims at promoting excellence among college students in selected fields of sports and games To achieve this, the Organisation provides physical facilities in the universities. It also arranges coaches, organises coaching camps and recommends students for sports talent scholarships The scheme is managed by the Association of Indian Universities and the University Grants Commission.

National Institutes of Sports

There are two national institutes for the development of physical education and sports in the country. The Netaji Subhash National Institute of Sports, Patiala, conducts courses in different games to train qualified coaches. It has so far trained 2,850 coaches in 13 different games and sports The Institute also organises regional coaching centres in different states and provides trained coaches at each of the Nehru Yuvak Kendras for spotting talented sportsmen in rural areas and giving them specialised training. It also conducts coaching and training camps for preparing national teams for participation in international meets

The Lakshimibai National College of Physical Education, Gwalior, provides teacher-training facilities for three-year degree course as well as for post-graduate studies and research in physical education and recreation. It also runs a three-year summer course for in-service personnel leading to the Master of Physical Education Degree. The College has turned out 815 graduates and 126 post-graduates in physical education up to 1975.

**National Fitness Corps Programme**

The National Fitness Corps programme is the only integrated multi-purpose programme of physical education at the middle, high and higher secondary school stage. The programme is being implemented by state governments and union territory administrations.

**National Physical Efficiency Drive**

The National Physical Efficiency Drive was launched in 1959-60 to create a general awareness among the people for attaining higher standards of physical efficiency. Under the scheme physical fitness tests are carried out annually all over the country on specified days at the testing centres. National Awards in Physical Efficiency are given to men and women who reveal proficiency of a very high order. The scheme is being implemented in collaboration with state Education/Sports Department. At the central level, the Lakshimibai College of Physical Education, Gwalior, operates this scheme. Since its inception, over 120 lakh people have participated in the Drive including over 10 lakhs in 1974-75.

# 6 CULTURAL ACTIVITIES

Preservation of the cultural heritage of the country, inculcation of art consciousness among the people and promotion of high standards in the performing and creative arts are some of the objectives of the State policy In keeping with this, the central and state governments strive for the promotion of art and culture through national and regional academies of art, dance, drama, music and letters These institutions and the Department of Culture at the centre are helped in their objective by the media of mass communication and voluntary agencies Apart from this, some eminent persons associated with the fine arts are, from time to time, nominated by the President of India to the Rajya Sabha in recognition of their standing in these fields

**VISUAL ARTS**

**Painting**

Important traditions of Indian painting include the murals of Ajanta, Ellora and other frescoes, the Buddhist palm leaf manuscripts, the Jain texts, the Deccan, the Mughal, the Rajput and the Kangra schools. The Bengal renaissance and the modern trends bring it to the present. While the modern trends in Europe and elsewhere have influenced modern Indian painting, Indian folk art and themes have also been successfully revived and accepted.

**Architecture and Sculpture**

Till the advent of modern trends, architecture and sculpture in India were inspired mainly through the religious motif The best examples are the temples, mosques, fortresses, palaces and other monuments which dot the Indian landscape Massive buildings that have come up after Independence and the city of Chandigarh symbolise the beginning of the modern period of Indian architecture Contemporary Indian sculptors have contributed materially to the creation of a new awareness of sculpture which had long suffered from neglect in the past.

**Handicrafts**

From coarse carpets to finest muslins, graceful cotton and exquisite silk saris, embroidered shawls, breathtaking creations in metals, unglazed and glazed pottery, fabulous jewellery—heavy tribal or costume or filigree—rugged or delicate woodwork, dolls and puppets are but a few creations of the rich and varied repertoire of Indian craftsmanship Their main inspiration is tradition handed down the generations. The heritage of tribal and village activity is sustained by providing economic support to the artisans and export promotion. Every year, the best among the craftsmen are honoured by the nation as master craftsmen

**Lalit Kala Akademi**

To promote the understanding of Indian art both within and outside the country, the Government of India established the Lalit Kala Akademi (Academy of Arts) in 1954. The Akademi strives to promote this objective through exhibitions and publications Every year it holds a national exhibition and every three years, the Triennale-India, an international exhibition The Akademi has brought out a series of monographs on ancient Indian art and published the results of new research in Indian arts in its journals It also releases large colour reproductions of paintings and has undertaken a programme to copy frescoes and murals in caves, temples, forts and palaces which are in danger of being lost

The Akademi organises artists' camps, seminars and lectures and gives grants to recognised art organisations in the country. It honours eminent artists by making them Fellows. So far, 16 persons have been conferred Fellowships. Awards are given to artists on the occasion of the national exhibition.

National Gallery of Modern Art

The National Gallery of Modern Art, set up in 1954, now has a collection of over 2,800 works of art, representing various styles, spanning more than a century. Among the distinguished Indian artists whose works are represented at the gallery are . Rabindranath Tagore, Abanindranath Tagore, Gaganendranath Tagore, Ravi Varma, Amrita Sher-Gil, N. S Bendre, Satish Gujral, Akbar Padamsee, J. Swaminathan, Nandlal Bose, Jamini Roy, Sudhir Khastagir, Mohan Samant, D P. Roy Chowdhury, M F. Husain and Shanti Dave.

The collection includes sculptures, graphics and paintings by international modern artists like Jacob Epstein, Giorgio de Chirico, Sonia Delaunay, A. Tapies, Se Duk Lee, D C. Daja and Peter Lubarada.

National Institute of Design

This institute was set up in 1961 at Ahmedabad by the central government in co-operation with the government of Gujarat and the Ford Foundation. It provides service, training and research in the fields of designs, in graphic arts, architecture and industry.

PERFORMING ARTS

Music

There are two main schools of classical music, namely, Hindustani and Karnatak. Both schools continue to survive mainly through an oral tradition being passed on by the teacher to the disciple and this has led to the existence of family traditions called the *gharanas* and the *sampradayas*.

In recent years there has been a great revival of interest in folk and tribal music which has been brought to the stage in cities. Growing in popularity is another category of music which has come to be known as light music.

The patronage to music is both state-supported and popular. The Sangeet Natak Akademi (National Academy of Music, Dance and Drama), All India Radio, films, voluntary organisations and cultural associations are the main agencies that have brought about a nationwide awareness and appreciation of music

Dance

Dance in India has an unbroken tradition of over 2,000 years. Its themes are derived from mythology, legends and classical literature. There are two main divisions of Indian dance, namely, classical and folk Under classical are those dance-forms which are based on ancient dance-discipline and have rigid rules for presentation. Among the leading forms of classical Indian dance are *Bharata Natyam, Kathakali, Kathak, Manipuri, Odissi* and *Kuchipudi Bharata Natyam* has roots in Tamil Nadu *Kathakali* is the dance-drama of Kerala. *Kathak* is the principal classical dance of North India and was revitalized as a result of the fusion of Mughal influence with Indian culture The state of Manipur in the eastern region has contributed a delicate, lyrical style of dance called *Manipuri*. *Odissi*, from Orissa, once practised as a temple dance, is today widely interpreted by artistes *Kuchipudi* is a dance-drama from Andhra Pradesh .Its themes are culled from the epics, the *Ramayana* and the *Mahabharata*. The folk and tribal dances of India are of numerous patterns

Both the classical and folk dances of India owe their present popularity to institutions like the Sangeet Natak Akademi and training institutes and cultural organisations in different parts of the country. To promote the study and training in the different forms of dance and music, the Akademi awards Fellowships to scholars, performers and teachers.

Theatre

Theatre in India is as old as her music and dance The classical theatre survives only in a few parts of the country, and the folk theatre can be seen in its regional variants in practically every linguistic region of the country. There is also the professional theatre, which is mainly urbanoriented. Besides, a rich tradition of puppet theatre is found in various parts of the country. Among the many forms prevalent are the string puppets, rod puppets, glove puppets and leather puppets (shadow theatre).

There are several semi-professional and amateur theatre groups active in many large cities, performing plays in Indian languages and English

The Department of Culture has formulated a scheme for the award of Fellowships to outstanding artistes in the field of performing, literary and plastic arts, under which 16 Fellowships for Rs 500 per month each are awarded every year for a period of two years

Sangeet Natak Akademi

The Sangeet Natak Akademi (National Academy of Music, Dance and Drama), which was set up in 1953, fosters the development of dance, drama and music. As part of its co-ordinating and promotional activities, it holds competitions, seminars and music festivals, presents awards to outstanding performing artistes, gives grants to institutions of music, dance and drama and extends financial help to traditional teachers and scholarships to students It subsidises and publishes research works on performing arts.

In view of the many theatrical, musical and dance forms prevalent in the country, the Akademi has set up a special unit for surveying and documenting them Its disc and tape library has the largest collection of Indian classical, folk and tribal music, and dance and theatre items

The Akademi is running two national institutions for imparting training in dance and drama These are the Kathak Kendra, New Delhi and Jawaharlal Nehru Manipuri Dance Academy, Imphal The Akademi has also been helping in the resurgence of the puppet theatre in the country.

The Akademi operates a scheme under which prizes are awarded to books in various Indian languages and English on music, dance and drama. It honours outstanding performing artistes by making them Fellows and presents annual awards[1]. It holds from time to time a theatre festival in which theatre groups from different parts of the country present their histrionic talent The Akademi is exploring new avenues of research in music, including acoustics Researches in the physical acoustics and psychological responses have been carried out both in the Akademi and by outside agencies

The Akademi has a gallery of musical instruments, *Asavari*, where a large number of classical, folk and tribal musical instruments

---

[1]For awards, see Appendices

are on display. *Yavanika,* another gallery, houses a representative collection of fascinating masks, puppets and folk theatre costumes.

National School of Drama

The National School of Drama, New Delhi, which was a constituent unit of the Sangeet Natak Akademi, has been registered as an independent institution under the Societies Registration Act, 1860.

The activities of the School include the training in the fields of acting, direction and production of drama, conducting and promoting research and survey in classical, traditional and modern drama, fostering cultural and academic contacts within India as well as other countries through exchange of personnel and research material.

Broadcasting

All India Radio has been contributing to bring about awareness and appreciation of Indian music—classical, light classical, folk and tribal.

The major programmes through which AIR propagates music are the weekly national programmes of music, the weekly programme of classical music by young artists; Sunday morning recital and the monthly national programme of regional (folk and light) music, the annual music competition to discover young talent and the week-long annual music festival—the Radio Sangeet Sammelan.

The All India Vividh Bharati Service of AIR broadcasts popular film and light music.

Recorded excerpts of major musical festivals held in different parts of the country are also broadcast by AIR. Through overseas transmissions, it seeks to satisfy the cultural needs of Indian nationals living abroad The music archives of AIR are among the most important collections of music in the country.

LITERATURE

Rediscovery of ancient and medieval Indian literature and development of modern literature in the major Indian languages and English mark the literary activities in present day India. A large number of literary periodicals and magazines, literary institutions and All India Radio have given impetus to the growth of modern Indian literature

Sahitya Akademi

The Sahitya Akademi was set up in New Delhi in 1954 for the development of Indian letters. Some of the main functions of the Akademi are : translation of literary works from one Indian language to another and from non-Indian to Indian languages; publication of works on literary history and criticism, books of reference like bibliographies and biographies and works in Devanagari and other Indian scripts and popularisation of the study of literature amongst the people. The Akademi has regional offices in Bombay, Calcutta and Madras.

An important publication of the Akademi is the *National Bibliography of Indian Literature* (1901-1953), covering books of literary merit in all the major Indian languages and English published in India or written by Indian authors. Four volumes of the *Bibliography* have been brought out. These cover English and all the major Indian languages except Dogri, Konkani, Maithili, Manipuri, Nepali and Rajasthani for which a fifth volume is under preparation. The Akademi's publications on 31 March 1977 number 850. The Sahitya Akademi publishes a bi-monthly journal in English, *Indian Literature*, and a half-yearly journal in Sanskrit, entitled *Sanskrit Pratibha*

The Akademi honours eminent men and women of letters by electing them Fellows. It awards prizes to works of outstanding excellence in English and major Indian languages[1].

**Encouragement to Young Talent**

Young artists of outstanding promise in the age group of 18-28 years are awarded 50 scholarships every year for advance training in Hindustani music, classical forms of Indian dances, traditional theatre, drama, painting and sculpture. A scholar gets Rs 300 per month for two years.

**Talented Children**

Talented children in the age-group of 10-14 years are awarded 100 scholarships every year for developing their talent in various fine arts such as music, dance, painting, sculpture etc 25 scholarships are reserved for children belonging to *Gharanas/Sampradayas*. A sum of Rs 600 per annum is paid to those who undergo training at the place of their residence For those who have to shift to a new place the scholarship amount is increased to Rs 1,200 per annum. In both cases, the tuition fee upto Rs 1,000 per annum is also reimbursed.

**Financial Assistance to old and needy artists**

Persons distinguished in letters, arts and such other walks of life who are above 58 years and have less than Rs 400 income per month are considered for grant of financial assistance Under the scheme an artist gets Rs 200 per month While the expenditure is shared by the Central and State Governments in the ratio of 2 : 1, the entire expenditure is borne by central government in respect of artists belonging to union territories

**Books**

India is the seventh largest producer of books in the world and ranks third, after USA and UK in the production of books in English. More than 14,000 titles were published in 1976 During 1976-77 books and publications including periodicals and journals valued at Rs 3.11 crores were exported to about 80 countries, while imports were valued at Rs 9.0 crores No import licence is required for import of educational, scientific and technical books, journals and news magazines

**National Book Development Board**

The National Book Development Board which was set up in 1967, is the principal advisory body for the development of the book industry and trade in the context of the overall requirements of the country. The Board was lasted reconstituted in 1970 It has representatives of different sectors of book industry, namely, publishers, authors, printers and booksellers as well as various governmental and non-governmental agencies. It is again being reconstituted

**National Book Trust**

The National Book Trust, set up in 1957, produces and encourages the production of good literature and makes it available at low prices to libraries, educational institutions and the public. Up to 31 August 1977, it had released more than 1,620 titles in English and various Indian languages

Since 1970, the Trust has been subsidising the publication of university level books in English by Indian authors. Publication of about 200 books has been subsidised so far Under *Aadan-Pradan* series, it is publishing up to 10 selected books from each of the principal Indian languages

[1] For awards, see appendices.

Under the *Aadan-Pradan* series. NBT brings out translation of representative books in one language into several other Indian languages. So far, about 360 titles have been brought out under this series.

In pursuance of its objective of fostering book-mindedness, NBT has, since its inception, held eight National Book Fairs and many regional book exhibitions in various regions of the country. The NBT also organised, in collaboration with the Indian book industry, two World Book Fairs in New Delhi, once in March-April 1972 and again in January 1976

During 1976-77 the NBT participated in the international Book Fairs held in Singapore, Kuala Lumpur, Cairo and Frankfurt and also in the book exhibitions organised at Chicago, in Mexico on the occasion of the 'International Congress on Human Sciences', Asia and Africa and in the exhibition of 'Best Designed Books' at Leipzig. The NBT also participated in the International Children's Book Fairs held at Bologna (Italy), Ankara (Turkey) and Boston Special exhibitions of Indian books were also organised in Barsa, London, Singapore, Kuala Lumpur, Jakarta, Suva (Fiji) Bangkok and Hong Kong

The National Book Trust also conducts from time to time seminars, workshops and short-term training courses on the problems of writers, translators, publishers and distributors.

**Publications Division**

The Publications Division of the union Ministry of Information and Broadcasting produces books, pamphlets, albums and journals to provide the lay reader with information regarding the diverse aspects of national life and culture and the teachings of national leaders.

A major project of the Division is the publication of the *Collected Works of Mahatma Gandhi.* So far 70 volumes in English and 67 volumes in Hindi have been published Nearly 90 volumes are planned to be brought out.

**Books for Children**

Books for children are brought out, among others, by the Children's Book Trust, the National Book Trust, the Publications Division and the National Council of Educational Research and Training.

**Raja Rammohun Roy National Educational Resources Centre**

The Raja Rammohun Roy National Educational Resources Centre was set up in New Delhi in 1972 to serve as an information centre to encourage Indian authorship and indigenous book production at university level and for the documentation and statistical analysis of the printed materials imported from abroad so as to arrive at a meaningful import policy for books. It has a reference collection of university level books produced indigenously as well as the subsidised editions of foreign textbooks brought out under the Union Education Ministry's collaboration programmes with the Governments of UK, USA and the Soviet Union. This collection facilitates authors, publishers and others interested in the field to identify the subject fields and levels where books need to be produced indigenously. In order to publicise the availability of Indian books, the Centre has also been arranging evaluation, by subject specialists, of selected books and circularises particulars of the books found suitable for use by various universities etc , so that they could be increasingly used. It conducts sample surveys on various aspects of the production and use of university level books.

**Copyright**

The Copyright Act, 1957, which amended and consolidated all previous laws on the subject, came into force on 21 January 1958 A Copyright Board with powers of adjudication and a Copyright Office have been set up under this Act. Since its inception the Copyright Office had registered 26,000 works Out of these 18,128 are artistic works, 7,871 literary works and 11 cinematograph films

India is a member of the Universal Copyright Convention, the Berne Convention, for the protection of literary and artistic works, convention for the protection of producers of phonograms against unauthorised duplication of their phonograms and the convention establishing the World Intellectual Property Organisation

## LIBRARIES

There are more than 50,000 libraries of all descriptions in the country, including ten libraries attached to institutions declared by Parliament of national importance and over 5,000 specialised libraries attached to the various departments of the central and state governments.

Though the work relating to libraries is a state subject, the central Department of Culture administers few central libraries and gives financial assistance to voluntary organisations running public libraries To ensure regulated development of public libraries, legislation has been enacted by the governments of Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu

**Copyright Libraries**

Under the Delivery of Books and Newspapers (Public Libraries) Act, 1954, four libraries are entitled to receive a copy of every new book and magazine published in the country At present, there are three such libraries, namely, National Library, Calcutta, Central Library, Bombay and Connemara Public Library, Madras.

**Manuscript Libraries**

The manuscript libraries and the libraries of oriental learning which are largely financed by the central government are spread all over the country. In addition, there are over 500 other collections belonging to state governments and private agencies which have hundreds of thousands of manuscripts

Some of the important manuscript libraries are · Saraswati Mahal Library, Thanjavur, Tamil Nadu; Government Oriental Manuscript Library, Madras; Khuda Baksh Oriental Public Library, Patna; Raza Library, Rampur, Uttar Pradesh, Oriental Research Libraries at Pune, Maharashtra and Vadodara, Gujarat; Sanskrit University Library, Varanasi and Visheshwaranand Vedic Research Institute Library, Hoshiarpur and Maulana Azad Aligarh Muslim University Library, Aligarh

**Other Libraries**

There are also specialised libraries providing facilities to researchers Prominent among them are at the Indian Council of World Affairs New Delhi; Indian Statistical Institute, Calcutta: Gokhale Institute, Pune; Theosophical Society, Madras; National Council of Applied Economic Research, Delhi and the Indian Institute of Public Administration, New Delhi.

Some other leading libraries are the Delhi Public Library (5 lakh volumes) and the Central Secretariat Library, New Delhi (4 lakh volumes) Apart from these, some of the bigger universities also have sizable collections

**Gazetteers**

A Central Gazetteers Unit in the union Ministry of Education, Social

Welfare and Culture, edits the central gazetteers and plans and co-ordinates the work of the state and district gazetteers. So far, three volumes of the Gazetteer of India, namely, 'Country and People', 'History and Culture' and 'Economic Structure and Activities' have been released The fourth volume 'Administration and Public Welfare' is in the press. More than 265 of the 337 district gazetteers have been revised Also, 'Who's Who of Indian Martyrs' has been published in three volumes. The first volume includes patriots who were hanged or killed in the Indian freedom struggle after 1857 till 1947 and the second contains the life sketches of those patriots who sacrificed their lives outside the territory of British India, those who lost their lives in the movements for the establishment of responsible governments in the former princely states and martyrs of the liberation movements in the former Portuguese and French possessions in India. The third volume deals with the 1857 martyrs. A monograph on the penal settlement in the Andamans has also been brought out by the Unit.

## FESTIVAL

Indian festivals are as varied in origin as they are large in number. Some of them celebrate the birthdays of national heroes and some other mark the change of seasons of ripening of harvests. Yet others have their origin in religion and in myths and legends. The main festivals of all the important communities in the country are also observed as public holidays. Some of the main festivals common to all India are : Diwali, Dussehra, Holi, Shivaratri, Janmashtami, Ram Navami, Muharram[1], Id-ul-Zuha, Id-ul-Fitr, Id-i-Milad, Christmas, Good Friday, Vaisakhi, Guruparbs, Buddha Jayanti, Mahavir Jayanti and Jamshed Navaroz. The Republic Day on 26 January, the Independence Day on 15 August and the birthday of Mahatma Gandhi on 2 October are observed as national holidays.

## ARCHAEOLOGY

All ancient and historical monuments of national importance are the responsibility of the central government, while other ancient and historical monuments are maintained by state governments.

The Archaeological Survey of India (ASI), New Delhi, which was founded in 1861, is concerned with the exploration and excavation of ancient sites, the preservation of centrally protected monuments and sites, architectural surveys, maintenance of gardens around monuments, chemical preservation of sculptures, monuments and other works of art, epigraphical research, maintenance of archaeological museums, publication of multi-form records and reviews and implementation of the Antiquities and Art Treasures Act, 1972. It also conducts a post-graduate diploma course in archaeology.

The ASI has a library which is one of the oldest in the country. It contains rare material not only on India but also on south-east Asia and West Asia There is a separate library of photographs.

Besides ASI, almost all the state governments have their own archaeological surveys or departments. University departments work-

---

[1] Muharram, though not a festival, is included among festivals of India because of its observance with piety and pageantry by a large number of people all over India.

ing in the field of archaeology carry out their research either independently or in co-operation with the state surveys and ASI. A Central Advisory Board of Archaeology co-ordinates the activities of the central and state archaeological surveys and the university research programmes in archaeology.

Museums

The first museum in the country was set up at Calcutta in 1814. At present, there are over 200 museums in India.

The central government finances and administers a few central museums of art, archaeology, natural history, geology and commemorative and crafts museums, and the Central Advisory Board of Museums provides a forum for the exchange of ideas on various aspects of museums maintained by state governments, universities and private organisations.

Some of the important museums are : Indian Museum, Victoria Memorial Hall, Asutosh Museum, Calcutta; National Museum, National Gallery of Modern Art, Nehru Memorial Museum and Library, New Delhi; Salar Jung Museum, Hyderabad; Prince of Wales Museum, Bombay; Government Museum, Madras, and the University Museum, Varanasi There are several archaeological museums at ancient sites like Konarak, Nagarjunakonda, Nalanda, Sanchi and Saranath and museums of handicrafts and textile designs and children's museums A few scientific and technological museums have also been established.

Training facilities for museum personnel at the diploma level are at present provided by the Universities of Aligarh, Vadodara, Calcutta and Varanasi and the Birla Institute of Technology, Pilani. In addition, the central government organises museum camps for in-service training and awards fellowships for training in India and abroad.

Archives

The National Archives of India, New Delhi, is the largest and perhaps the best organised record repository of non-current records in the whole of Asia It is a clearing house for the scientific development of archives in the country. It caters to a large number of research scholars both Indian and foreign The National Archives is carrying out a nation-wide programme for the survey and listing of private records and the publication of the National Register of Private Records The organisation is also acting as the secretariat of the Indian Historical Records Commission The National Archives has two Record centres at Bhopal and Jaipur.

## INTERNATIONAL CULTURAL RELATIONS

Cultural Agreements

India has cultural agreements with 50 countries. They are : Afghanistan, Arab Republic of Egypt, Argentina, Australia, Algeria. Bahrain, Bangladesh, Belgium, Brazil, Bulgaria, Cuba, Colombia. Czechoslovakia, Democratic People's Republic of Korea, Federal Republic of Germany, France, German Democratic Republic, Greece, Guyana, Hungary, Indonesia, Iran. Iraq, Italy, Japan, Kuwait, Losotho, Mauritius, Mongolia, Mexico, Norway, People's Democratic Republic of Yemen, Phillipines, Poland, Rumania, Senegal, Sudan, Syria, Tunisia, Thailand, Turkey, Tanzania, United Arab Emirates, USSR, Uganda, Vietnam, Yugoslavia and Zambia Closer cultural relations with some of these countries have found a practical shape in the form of cultural exchange programmes with 23 countries, namely, Afghanis-

tan, Australia, Arab Republic of Egypt, Bangladesh, Belgium, Bulgaria, Czechoslovakia, Federal Republic of Germany, France, German Democratic Republic, Hungary, Iran, Iraq, Mauritius, Mexico, Mongolia, People's Democratic Republic of Yemen, Poland, Rumania, Senegal, Turkey, USSR and Yugoslavia

Auroville

While the cultural co-operation activities rest mainly with the Department of Culture, union Ministry of Education, Social Welfare and Culture, international cultural co-operation programmes are also executed through the Indian National Commission for Co-operation with UNESCO. A programme now under way with assistance from the commission is the 'Auroville' project of Sri Aurobindo Society, Pondicherry, which aims at bringing together the values and ideals of different cultures.

Indian Council for Cultural Relations

The Indian Council for Cultural Relations, New Delhi, established in 1950, strives to promote and strengthen cultural relations and mutual understanding between India and other countries. The Council has regional offices in Bangalore, Bombay, Calcutta and Madras and cultural centres in Suva (Fiji), Georgetown (Guyana) and San Francisco (USA).

The main functions of the Council are reciprocal development of studies in Indian and foreign universities, publications in English and foreign languages on different aspects of Indian culture, exchange of cultural material with libraries and museum abroad, exchange of cultural delegations, scholars and artistes and organisation of lectures, seminars and conferences. The Council promotes exchange visits between scholars, artistes, men of eminence in the field of art and culture; organisation of international seminars, symposia and conferences; establishment of chairs and centres of Indian Studies abroad; looking after the welfare of foreign students in India and publication of periodicals in English, Arabic, Spanish, French and Hindi.

The Council administers the Jawaharlal Nehru Award for the Promotion of Peace and International Understanding, instituted by the union government in 1964. Recipients of the Award so far are: U Thant, the late Dr Martin Luther King, Khan Abdul Khaffar Khan, Yehudi Menuhin, Mother Teresa, Dr Kennth D. Kaunda, Josip Broz Tito, Andre Malraux, Julius Nyerere Raul Prebisch, Jonas Salk and Giuseppe Tucci

# 7 SCIENTIFIC RESEARCH

There are more than 129 national laboratories at present and there is also a network of more than 200 other laboratories and research institutions The University Grants Commission has set up a Scientific Research Council to promote research in the universities. The expenditure on scientific research has gone up from Rs 4.7 crores in 1950-51 to approximately Rs 400 crores in 1976-77. The S & T component of the Fifth Plan, envisaged in the public sector, will be about Rs 1,570 crores The electronics component of this S&T plan is to generate a total production potential of Rs 2,600 crores during the Fifth Plan period and provide employment to nearly 2.6 lakh people. These are some indicators of the expanse of science in India and the importance given to scientific research

Organisationally, despite continuous efforts to reduce the number of co-ordinating points, several bodies have come into being because scientific research has become increasingly diversified and complex The Atomic Energy Commission and the Department of Atomic Energy are in existence for more than two decades Similarly, the Council of Scientific and Industrial Research and the Defence Research and Development Organisation have also been functioning for a number of years In 1971, a National Committee on Science and Technology (NCST), backed by an executive central Department of Science and Technology, came into being The Space Commission, backed by a Department of Space, was set up in 1972. A little earlier, an Electronics Commission, with a central Department of Electronics was created.

Agricultural research with its long history in India, has essentially been carried out by the Indian Council of Agricultural Research in the Department of Agricultural Research and Education with the help of 24 institutions and 21 agricultural universities The Indian Council of Medical Research, started in 1911, has under its control 10 permanent institutions doing studies not only in diseases and treatment but also in various other related branches of fundamental research Departmental research in aviation, rail and road, forestry, water and power and other fields is conducted by organisations within the administrative control of the concerned ministries and departments.

**SCIENCE POLICY**

The Government of India's science policy is guided by a resolution adopted by Parliament as early as March 1958 Among its objectives is to secure for the people of the country the benefits from the acquisition of scientific knowledge and its application. The resolution also sets out some other aims like encouraging individual initiative for the acquisition and dissemination of knowledge as well as the discovery of new knowledge, fostering programmes to train scientific and technical personnel to fulfil the needs in the fields of science and education, agriculture, industry and defence and ensuring an adequate supply of scientists and recognising their work. All this would help in fostering and sustaining the cultivation of science and scientific research in all its aspects namely, basic, applied and educational

**EXPENDITURE**

Tables 7.1 and 7.2 give an idea of basic expenditure on scientific research and development sector-wise and organisation-wise.

**TABLE 7.1**
**EXPENDITURE ON SCIENTIFIC RESEARCH AND DEVELOPMENT**

(*Rs crores*)

| | 1972-73 | 1973-74 | 1974-75 | 175-76 | 1976-77 |
|---|---|---|---|---|---|
| Central Government | 189 05 | 199 05 | 279·44 | 354·44 | 238·0 |
| State Governments | 22 11 | 24 13 | 29·28 | 32·33* | 45 91* |
| Private Sector | 22 89 | 30 35 | 35·68 | 42·42* | 48·81* |
| TOTAL | 234 05 | 253·05 | 344·40 | 429·19 | 513·42 |

*Expenditure on S & T by States and Private Sector for 1975-76 and 1976-77 has been projected by fitting a linear regression to the actual figures of 1972-73.

**TABLE 7.2**
**S&T BUDGET OF MAJOR ORGANISATIONS**

(*Rs crores*)

| Name of the Organisation | 1974-75 | 1975-76 | 1976-77 |
|---|---|---|---|
| Department of Atomic Energy | 47 52 | 52·83 | 66·71 |
| Department of Space | 28 10 | 34 91 | 41 08 |
| Council of Scientific and Industrial Research | 30 12 | 37·49 | 44 44 |
| Defence Research and Development Organisation | 40 16 | 45 00 | 52 77 |
| Indian Council of Medical Research | 2 98 | 2·75 | 4 05 |
| Indian Council of Agricultural Research | 28 58 | 32 94 | 37 03 |
| Department of Electronics | 9 29 | 5 73 | 5·19 |

**NCST**

The National Committee on Science and Technology (NCST) is the apex body to advise the government on all matters relating to planning and promotion of science and technology.

The first ever Science and Technology Plan for the country was prepared by the NCST in 1973. Priority has been given to areas like natural resources, fuel and power, oil and natural gas, petrochemicals, fertilizers, groundwater, minerals, heavy engineering and machine tools, mining, steel and metallurgy industry and utilisation and recycling of wastes. The plan also has suggestions in the fields of housing, urbanisation and construction technology, transportation, health and family welfare and research support, extension and education

While the S&T component of the Fifth Plan in the central sector will be Rs 767.64 crores, there will be an additional non-plan provision of Rs 561 67 crores.

**DST**

The Department of Science and Technology (DST) was set in 1971. Since then it is continuously engaged in promoting frontier and emerging areas of science and technology. It co-ordinates S&T activity in the country including planning and provision of grants to research institutions; holds ministerial responsibilities of such autonomous bodies as the Council of Scientific and Industrial Research (CSIR) and the National Research Development Corporation (NRDC) and looks after bilateral agreements on science and technology with other countries Scientific Attaches have been appointed at the Indian embassies in Washington, Moscow and Tokyo to establish better liaison in science and technology

The DST has taken several important steps in furthering R&D orientation and assistance for the industry. These include promotion of indigenous technology and adaptation of modern technologies through in-house R&D efforts in the industry. Till the end of September 1977, as many as 440 R&D establishments in both the public and private sectors were registered with the DST. Some of these units have succeeded in exporting their know-how to foreign countries.

Seventeen state research, development and design committees have been set up jointly by the DST and the Department of Industrial Development These committees which started functioning in 1973 to help in solving the problems of the small industries, are now serving the medium sector industries also

With a view to promoting and strengthening the S&T base in the country, the DST has established regional sophisticated instrumentation centres at the Indian Institute of Technology in Madras and Bombay, Central Drug Research Institute, Lucknow and Bose Institute, Calcutta.

*NRSA*

The National Remote Sensing Agency (NRSA) is an autonomous body under DST set up for carrying out surveys of various natural resources using satellite imagery, scanner data from aircraft flying and serial photography. The laboratory premises are located at Hyderabad and the Research Flight Facility with three aircraft (for high, medium and low altitude flying) and equipment stationed at Bangalore The NRSA has started undertaking survey projects on behalf of users Fifth Plan allocation for NRSA is Rs 6 39 crores. The Indian Photo Interpretation Institute at Dehra Dun with, an R&D Wing at Hyderabad, has hitherto been a part of the Survey of India and has now been merged with NRSA from July 1976

*NISSAT*

The DST has set up a National Information System for Science and Technology (NISSAT), the broad objectives of which are to interlink and co-ordinate a large number of information sources, systems and services into an effective decentralised information net work involving standardized and mutually compatible systems for collection, storage, processing and dissemination of information. Four sectoral information centres (subject-oriented) and six regional information centres (multi-disciplinary) are being set up during the Fifth Plan within the approved outlay of Rs 1 60 crores.

*CEL*

The Central Electronics Limited (CEL) is a public sector enterprise set up for the manufacture of sophisticated ferrites, ceramic and other electronic components based fully on indigenous know-how. Its factory is located at Sahibabad (U.P.) and commercial production has started. The company has also undertaken a number of R&D projects based on indigenous know-how in the field of electronics and electronic instrumentation for possible commercial production. The approved outlay during the Fifth Plan is Rs 5 crores which will go up to Rs 7 crores by 1984-85.

National Surveys and Other Institutions

The DST has administrative responsibility for the Survey of India, Dehra Dun; the National Atlas Organisation, Calcutta; the Natural History Museum, New Delhi; the Botanical Survey of India, Calcutta, which has in Calcutta itself four main centres, namely, the Indian Botanical Garden, the Central National Herbarium, the Industrial Section of the Indian Museum and the Central Botanical Laboratory and seven regional circles at Allahabad, Coimbatore, Dehra Dun, Jodhpur, Pune, Port Blair and Shillong; and the Zoological Survey of India, Calcutta, which has regional stations at Dehra Dun, Jabalpur, Jodhpur, Madras, Patna, Port Blair, Pune, Shillong and Solan

There are several independent institutions doing research with the help from the DST. These are the Indian Association for the Culti-

vation of Science, Calcutta; Bose Institute, Calcutta; Raman Research Institute, Bangalore; Birbal Sahni Institute for Palaeobotany, Lucknow, Wadia Institute of Himalayan Geology, Dehra Dun; Maharashtra Association for the Cultivation of Science, Bombay and Padmaja Naidu Himalayan Zoological Park, Darjeeling. Grants are given to the Indian National Science Academy, New Delhi and the Indian National Science Congress Association, Calcutta. The DST has also set up a Scientific and Engineering Research Council (SERC) to support research programmes in the field of frontier areas and other entirely new scientific disciplines emerging at the interface of pure and applied science

Environment

The DST has reconstituted the National Committee on Environmental Planning and Co-ordination (NCEPC) entrusted among other things, with a major research work in ecology under Unesco's programme 'Man and Biosphere' (MAB). The projects in which the committee is engaged include environmental and ecological research, human settlements, mass transit and water pollution control.

Under a mass transit programme, the DST has been actively associated with the Delhi Transport Corporation (DTC) in revamping existing route patterns and in better utilisation of existing transport potential

The National Research Development Corporation of India (NRDC), New Delhi, a public sector undertaking of the Central Government set up in 1953, acts as a link between research and industry. It is also entrusted with the task of promotion of inventive talent in the country. In 1976-77, it signed 166 licensing agreements for releasing various processes to industry. About 2,062 licensing agreements have so far been signed by the NRDC. The activities which the NRDC itself undertakes in any application of indigenous know-how in collaboration with industry have been intensified during recent years

The NRDC is making efforts on the horizontal transfer of technology, that is, transfer of proven technology available with one industry to another, eliminating repetitive import of technology. The Corporation has also succeeded in contracting for export of technology from India It has been able to sell technology for the manufacture of synthetic tannin to a party in USA

ATOMIC ENERGY

The Atomic Energy Commission, set up in August 1948, is responsible for all atomic energy activities in the country. The executive agency responsible for implementing the atomic energy programme is the Department of Atomic Energy which was set up in August 1954

Large-scale research and development work on the application of atomic energy is done at the Bhabha Atomic Research Centre (BARC) at Trombay, near Bombay. The Centre is the largest single scientific establishment in the country. At present it houses four research reactors: APSARA, a one-megawatt swimming pool type reactor; CIRUS, a 40 mw reactor built with Canadian collaboration; ZERLINA, a zero energy experimental reactor and PURNIMA, a zero energy fast reactor, and some of the most advanced laboratories and workshops in the world R-5, a 100 mw thermal research reactor, is under construction at Trombay

Over 350 radioactive products and labelled compounds are produced at the BARC. Radioisotopes are finding use within the

country in applications ranging from industrial radiography to the diagnosis and treatment of diseases. Important applications of radiations being tried out are in disinfecting foodgrains, developing high-yielding, disease-resistant mutants of, among others, rice, wheat, groundnut and jute, preserving perishable foodstuffs and sterilising medical products Some of the radioactive products and associated equipment produced at the BARC are also being exported. A commercial *radiation sterilisation plant, ISOMED at Trombay provides sterilisation* service to the medical products industry in the country.

The Gauribidanur Seismic Station of BARC, near Bangalore, helps in the detection and indentification of underground nuclear explosions and also facilitates seismic research

A High Altitude Research Laboratory of BARC at Gulmarg provides facilities for high altitude research to all scientific institutions and universities in the country. A Nuclear Research Centre has also been set up at Srinagar.

Besides basic research in the nuclear sciences. the BARC is also conducting research in a wide range of other fields including metallurgy, vacuum technology, laser, electronics, agriculture, biology and nuclear medicine. It has developed a number of products and processes during the last 25 years and passed on the technical know-how relating to them to the industry.

In addition to R&D, the Atomic Energy Programme covers a wide range of independent activities undertaken by units under the Department of Atomic Energy situated in different parts of the country. Survey, prospecting and development work relating to uranium, thorium, beryllium and columbium-tantalum is carried out by the Atomic Minerals Division with its headquarters at Hyderabad. The Indian Rare Earths Ltd. extracts rare earths, minerals and thorium from the beach sands of South India. The Uranium Corporation of India Ltd. mines and concentrates uranium at Jaduguda in Bihar. A Nuclear Fuel Complex at Hyderabad fabricates fuel elements for nuclear power reactors. The Complex also prepares special materials needed by the electronics industry. Manufacture of electronic instruments and equipment for nuclear as well as non-nuclear uses including commercial TV and computers is undertaken at the Electronics Corporation of India Ltd., Hyderabad. A Variable Energy Cyclotron built at Calcutta by BARC became operational in June 1977. It will be a national facility for advanced work in nuclear physics and for the controlled direct irradiation of biological and agricultural products

**Nuclear Power**

The most important peaceful application of atomic energy is the generation of power. Nuclear power made its debut in the country with the commissioning of the 420 mw Tarapur Atomic Power Station in Maharashtra in 1969.

The Atomic Power Authority, an agency under the Department of Atomic Energy, is responsible for all commercially operating atomic power stations Presently, it runs the Tarapur Station and looks after the commercial aspects of the Rajasthan Atomic Power Station Unit-I.

The Power Projects Engineering Division of the Department undertakes the construction of nuclear power stations Presently, it is constructing Unit-II of the Rajasthan Atomic Power Station, the Madras Atomic Power Station at Kalpakkam in Tamil Nadu, and the Narora Atomic Power Station at Narora in Uttar Pradesh.

The power reactors being constructed at present will use heavy water as moderator. To produce this rare commodity within the country, a heavy water plant is functioning at Nangal. Besides this, four heavy water plants are under construction at Vadodara, Kota, Talcher and Tuticorin.

To keep abreast of developments in nuclear technology, work on advanced reactor concepts, such as the Fast Breeder Reactor, is also being undertaken. Research anad development work in the area of fast reactors has commenced at the Reactor Research Centre at Kalpakkam, where a Fast Breeder Test Reactor is under construction.

Yet another area in which India has made tremendous advance is the technology of underground nuclear explosions developed with the sole objective of using them for civil construction purposes. On 18 May 1974, India successfully conducted its first underground nuclear experiment at Pokhran in Rajasthan.

There is an advanced training programme at the Bhabha Atomic Research Centre where annually around 150 graduate engineers and scientists are given special training in nuclear science and technology and prepared for positions in the various atomic energy establishments in the country. India's nuclear facilities have been made available to a number of developing countries which have sent their scientists for training and research work.

## SPACE RESEARCH

The primary aims of the Indian space programme are the application of space science and technology to further national developmental objectives in mass communication and education *via* satellites; the survey and management of natural resources through remote sensing technology from space platforms and the development of space technology with the maximum degree of self-reliance.

The organisation entrusted with the realisation of these aims is the Space Commission backed by the Department of Space, with Bangalore being the headquarters of both. The Chairman of the Space Commission is also Secretary to Government of India in the Department of Space

The Indian Space Research Organisation (ISRO) is the research and development organisation of the Department of Space. It is responsible for the planning, execution and management of space research activities and space applications programmes of the Department of Space. The ISRO, which also has its headquarters in Bangalore, provides rockets and laboratory facilities to scientists belonging to different organisations in India for conducting approved space science experiments.

### Major Establishments

The major establishments in the field of space are described below:

Vikram Sarabhai Space Centre (VSSC), Trivandrum, is the main research and development centre for space technology This encompasses all aspects of work related to the development of sounding rockets and satellite launch vehicles, scientific and technological payloads, ground-based and vehicle-borne instrumentation and production facilities for propellants and rocket hardware. VSSC is developing the Menaka and Rohini (including Centaure) series of sounding rockets for meteorological and scientific investigations of the upper atmosphere, respectively, and a satellite launch vehicle called SLV-3. SLV-3, a four-stage solid propellant rocket, is designed to place a 40 kg satellite, called Rohini, into an elliptical orbit of 300 km perigee and

885 km apogee with a maximum life-time of 100 days. SLV-3 will be about 23 metres in length and its maximum diameter will be one metre It is proposed to be launched from Sriharikota by the end of 1979. The RS-1, polyhedral in shape and weighing about 40 kg, is the first of the Rohini series of satellites which will be launched by SLV-2

The Space Science and Technology Centre (SSTC) of the VSSC is the main research and development laboratory Solid propellant for the rockets is produced at the Rocket Propellant Plant (RPP) while the rockets and other hardware developed by SSTC are taken up for manufacture at the Rocket Fabrication Facility(RFF) The Propellant Fuel Complex (PFC) produces special materials required for the processing of propellants Liquid propellants for rockets have also been developed on a laboratory scale

VSSC operates and maintains the Thumba Equatorial Rocket Launching Station (TERLS) which has been recognised by the United Nations Organisation as an international facility for sounding rocket experiments to investigate problems of meteorology and ionosphere over the problems of meteorology and ionosphere over the geomagnetic equator running close to Thumba and for other experiments. Since November 1963, when the range became operational, more than 500 sounding rockets of different makes have been launched for meteorological, ionospheric, seronomic and astronomical studies. Scientists from France, Federal Republic of Germany, Japan, UK, USA and USSR have participated, in cooperation with their Indian counterparts, in many of these experiments.

ISRO Satellite Centre (ISAC) is responsible for the design, fabrication and integration of spacecraft and the development of satellite technology. The first Indian satellite, 'Aryabhata', named after the famous ancient Indian astronomer and mathematician, was designed and fabricated by this Centre. Aryabhata, a 360-kg satellite, was launched on 19 April 1975 into a near-circular orbit of 600 km at an inclination of 51° to the equator from a Soviet Cosmodrome using a Soviet rocket The ground stations one at Bears Lake near Moscow and the other at SHAR Centre were used for command and data reception purposes The spin-stabilised satellite survived in orbit well beyond the design lifetime of six months owing to low rate of spin decay All technological systems on board the satellite have been functioning well

With the launching of Aryabhata, India has acquired indigenous capability in satellite technology, namely, to design and fabricate a space worthy system and evaluate its performance in orbit, evolve the methodology of conducting a series of complex operations on the satellite and set up the necessary receiving, transmitting and tracking systems besides the establishment of the infrastructure for fabrication of satellite systems

The second Indian satellite designated 'Satellite for Earth Observations (SEO)' will carry out the earth observations and obtain useful information in the areas of hydrology, forestry, oceanography and meteorology. SEO will be launched from the Soviet Union in 1978. The satellite will carry sensors which will consist of two TV camera systems and microwave radiometer systems, being developed by SAC, for earth observation purposes The mission control centre will be located at the SHAR Centre and the ground stations at Trivandrum and Ahmedabad will also receive signals from SEO.

The expertise and experience gained in the fabrication and opera-

tion of this satellite will provide a vital input for future application satellites of India. An earth resources survey satellite is of great relevance to India in view of its vast size, large population and many untapped resources.

ISAC is fabricating the Rohini Satellite, RS-1, to be launched by SLV-3. The primary mission goal of RS-1 is to evaluate the performance of SLV-3, its dynamic characteristics, the trajectory of the vehicle and the orbital characteristics of the satellites.

ISAC is also responsible for the development of a 616 kg three-axis stabilised geostationary experimental communication satellite called 'APPLE' The communications payload for the satellite will be built at the Space Application Centre, Ahmedabad Certain important sub-systems such as Apogee Boost Motor and secondary propulsion will be built at VSSC A project, the Indian Experimental Satellite for Communication (IESCOM), has been organised for building the APPLE spacecraft, and design activities and the establishment of facilities are underway. The satellite is expected to be launched by an Ariane test flight of the European Space Agency in 1980.

The SHAR Centre at Sriharikota island, off India's east coast, is about 100 km north of Madras city It is being developed as a range for launching large-multistage sounding rockets and satellite launch vehicles Facilities to launch sounding rockets up to 560 mm in diameter have been established and these are being expanded for launching larger and heavier rockets. The augmented facilities will be used for flight-testing different stage combinations of SLV-3.

A satellite launch complex, along with supporting facilities is being established and is expected to be ready soon for flight-tests of SLV-3 To meet the propellant requirements of large vehicles, a plant with an annual production capacity of 250 tonnes of solid propellants, with provision for further expansion, has been set up. A comprehensive test facility for conducting various ground tests of rocket motors and sub-systems has been set up at Sriharikota.

The main ground station for Aryabhata is located at this Centre. It will also serve as the prime mission control centre for India's second satellite, SEO and all future spacecrafts launched by ISRO.

The Space Applications Centre (SAC) is engaged in the planning and execution of the space application projects of ISRO The objective of this Centre is to apply space science and technology to practical uses To achieve this goal SAC has taken up work in telecommunications and television broadcasting and reception *via* satellites, use of remote sensing techniques to survey natural and renewable earth resources, and studies in space meteorology and satellite geodesy.

This Centre is developing expertise as well as instrumentation required in the application areas Recently it successfully conducted the Satellite Instructional Television Experiment (SITE), the yearlong (1 August 1975 to 31 July 1976) experiment in direct broadcast of television programmes *via* the NASA satellite, ATS-6.

SITE was a collaborative programme of India and the USA using the geostationary satellite ATS-6 (Applications Technology Satellite) of the US National Aeronautics and Space Administration (NASA) and the ground systems built by ISRO Specially-augmented community TV sets were installed in 2,400 villages spread over Rajasthan, Bihar, Orissa, Madhya Pradesh, Karnataka and Andhra Pradesh These TV sets received instructional programmes directly from the satellite The Kheda district in Gujarat has India's first rural TV

transmitter which relayed SITE programmes. The aim of this experiment was to reach the rural India through a satellite-based TV system primarily for instructional purposes.

Under an agreement between ISRO and the Symphonie, one of the two transponders aboard the Franco-West German 'Symphonie' satellite with a bandwidth of 90 MHz has been made available for Indian experiments in satellite telecommunications for two years beginning from June 1977. This is known as the Satellite Telecommunications Experiments Project (STEP) and is being executed as a joint project of ISRO and the Posts and Telegraphs Department of the Ministry of Communications. Under STEP, experiments in remote area communications using transportable terminals, radio-networking, emergency communications, digital communications, multiple access, integration of satellite circuits into terrestrial networks and multiple audio-video transmissions will be conducted. The project is mainly aimed at providing a system test of geo-synchronous communication satellite and sharpen India's expertise in the design, development, fabrication and operation of communication system involving geo-stationary satellite.

The ground network for STEP consists of Ahmedabad Earth Station, Delhi Earth Station, Madras Earth Station, Transportable Remote Area Communication Terminal (TRACT) and Emergency Communication Terminal.

Except for the Madras Earth Station, the modification, fabrication and operation of all other stations are the responsibilities of ISRO. ISRO has fabricated the antenna system and the high-power amplifier for the Madras Earth Station. The Ahmedabad and Delhi Earth Stations are existing stations which have been modified for STEP. TRACT was fabricated at SAC and was tested with ATS-6 in July 1976. The Emergency Communication Terminal, a miniaturised and ruggedised communication system, is mounted on a jeep in such a way that it can be detached easily and the whole container air-lifted in emergencies like natural calamities when the terrestrial communication system is disrupted.

One important area of activity of SAC is the remote sensing of natural and renewable resources. ISRO and the Indian Council of Agricultural Research (ICAR) conducted, during 1974-75, a joint experiment called the Agricultural Resources Inventory and Survey Experiment (ARISE) employing remote sensing techniques to assess crops and land-use pattern. Aerial flights using Hasselblad cameras were conducted over Anantapur district of Andhra Pradesh and Patiala district of Punjab. The results indicated that the level of details regarding agricultural features, land-use pattern, etc., which remote sensing data can give is far higher than the published and available DES (Directorate of Economics and Statistics, Ministry of Agriculture) data. This has important implications in planning at the micro level. Photo-interpretation of the imageries taken have been done and classifications of crops and of land-use pattern pertaining to orchards, forests, fallow lands, agricultural lands and water bodies have been made. Analysis and interpretation of the data collected are in progress.

About ten remote sensing experiments have so far been conducted and most of them used air-borne multi spectral cameras to take photographs for studying aspects of agriculture and landscape features. Such aerial campaigns were conducted over sites in Pune, Bombay, Sriharikota island, Jaipur, Bangalore, Anantapur district in Andhra Pradesh, Patiala district in Punjab and Panchamahals district in Gujarat.

INSAT

The Department of Space, in close cooperation with the Ministries of Communications, Tourism and Civil Aviation, and Information and Broadcasting, has initiated the establishment of the Indian National Satellite (INSAT) System. The INSAT System is a multi-purpose operational space system providing telecommunication, meteorology and television services from a common satellite in geo-stationary orbit. The proposed system envisages a very significant telecommunications component providing for long distance telephony, communication with remote areas and islands and emergency communications. The proposed meteorological capability includes 24-hour observation of weather system, data collection and relay from remote unattended platforms and a disaster warning. Television capability relates both to direct TV broadcasting from satellite to community TV sets in rural areas and to radio networking. The Government of India has approved the implementation of the INSAT-I system. It is expected to be operational sometime in the first quarter of 1981.

ESCES

The SAC operates the Experimental Satellite Communications Earth Station (ESCES) Ahmedabad, which is an international centre for training in satellite communications technology

The Satellite Tracking and Ranging Station (STARS) was inaugurated on 23 January 1977 at Kavalur in Tamil Nadu. It has been started in collaboration with the USSR Academy of Sciences. In addition to the tracking cameras, there is also a ranging laser at the station Using this facility, it will be possible to determine orbits of our own satellites accurately and the data collected will be useful for geodetic purposes.

PRL

The Physical Research Laboratory at Ahmedabad has been the cradle of Space Science in India and is being developed further as a national centre in this field Various universities and academic institutions in the country are also identified and encouraged to undertake development tasks relating to space science and technology and their various useful applications.

ELECTRONICS

Electronics Commission is the nodal agency responsible for the healthy growth of the electronics industry in India. It is assisted by the Department of Electronics for executive duties. The responsibilities of the Electronics Commission/Department of Electronics are discharged through a number of mechanisms like the Information, Planning and Analysis Group (IPAG), coordination through promotional and regulatory work, technology development and direct execution of programmes.

A public sector unit, Electronics Trade and Technology Development Corporation has been set up to promote the foreign trade. A Computer Maintenance Corporation has been set up at Hyderabad to streamline the maintenance of various computers in the country and train the computer maintenance personnel It is also proposed to initiate the manufacture of integrated circuits through a Semiconductors Corporation Besides, a few other plan projects like National Informatics Centre, National Automation and Control Programme and standardisation activities have been initiated

To build up production-oriented indigenous technology, the Electronics Commission has set up Technology Development Council and National Radar Council mainly to identify, implement and monitor

the technology development projects in various research institutes, public sector undertakings, universities and IITs. The activities of the latter are in the field of radars, sonars and navigational aids. The TDC and NRC have approved 83 and 19 projects respectively for financial support from various sectors of electronics like materials, components, instruments controls, computers, radars etc. Out of these, more than 20 projects have either been completed or the technology developed by them is being transferred. Most of the projects are of high technology nature and are essentially import substitution activities.

The production of electronic equipment and components has grown very rapidly over the past few years. During 1976, the total electronics production was of Rs 410 crores The production of electronics items during January-September 1977 was estimated to be of Rs. 362 crores The public sector units like Bharat Electronics Ltd., Indian Telephone Industries Ltd, Electronics Corporation of India Ltd., Instrumentation Ltd, Hindustan Teleprinters, Hindustan Cables Ltd., etc. contribute for more than 50 per cent of the total production and manufacture a wide variety of products The export of electronic goods during 1976 was Rs. 27 10 crores. The Santa Cruz Electronics Export Processing Zone has started its operation with the export on 100 per cent basis

Considerable emphasis is being placed on developing indigenous computer capability for hardware as well as software The National Centre for Software Development and Computing Techniques, Bombay has been making steady progress towards its objectives. The National Informatics Centre in Delhi has made considerable progress from the conceptual and planning angle of building up a computer network grid in connecting several important government and autonomous organisations to form an integrated information system on an interactive basis The regional computer centre at Calcutta has started functioning

In order to encourage the growth of the electronics industry uniformly throughout the country, Electronics Commission has assisted the state governments in setting up functional electronics estates Already a few states like Gujarat, Kerala, Uttar Pradesh, Punjab, West Bengal, Tamil Nadu, Karnataka, Haryana and Goa have set up state-owned Electronics Development Corporations for the manufacture of wide variety of electronic items The Department of Electronics has assisted states to set up test and development centres for the use of small-scale units So far, 16 such centres have already been financed.

The electronics industry in India is spread in private as well as public sector and the users cover a wide variety of government departments There is a constant need for coordination of various activities In order to assist the Department of Electronics in obtaining feed-back on various aspects, a National Advisory Committee on Electronics has been set up The committee has representation from a wide variety of organisations and departments. The defence electronics committee ensures that the defence requirements are properly coordinated with respect to the overall plans With the increasing importance of radars in civilian and defence applications, National Radar Council was set up in 1974. Its tasks include preparation of technology plan to meet the requirements An integrated R&D programme is being initiated.

CSIR

The Council of Scientific and Industrial Research (CSIR) with its network of laboratories and research institutions is a major instrument of scientific and industrial research under State auspices and supports research in universities and other centres of learning.

The Council administers the "Scientists Pool", introduced in 1958, to provide temporary placement to well qualified Indian scientists, engineers and medical personnel returning from abroad, and later extended to highly qualified Indian scientists who had not been abroad The number of pool officers working at the end of 1976 was 510. The CSIR also maintains a register of scientists and technical personnel in the country.

The Council has launched a scheme to facilitate CSIR scientists, technologists and engineers to set up industries based on CSIR know-how. Six industries based on CSIR know-how were being set up by scientist entrepreneurs in 1975

The Council has set up two polytechnology clinics, one each at Hyderabad and Trivandrum. The setting up of such clinics in Bihar, Karnataka, Madhya Pradesh and Gujarat has been approved. These clinics will act as diagnostic and direction centres to get at the solution of the problems posed by industry and will be important vehicles for CSIR's interaction with industry in the states

Eight to ten per cent of the annual budget of the CSIR is earmarked for research schemes and fellowships as support to universities and other academic institutions. The research schemes in progress in these institutions numbered 551 and there were 586 research fellows attached to these schemes in 1976. Besides, 4,240 *ad hoc* research fellows selected by CSIR were also pursuing research in various institutions. Under the 'Emeritus Scientists' scheme, 26 superannuated scientists continued their work in 1976.

The CSIR earned about Rs. 4.10 crores in 1976 from premia, royalty, consultation, testing and other services, supply of project reports and sale of products of pilot plants.

Since 1957, the Council is administering the Shanti Swarup Bhatnagar Memorial Awards in physical, chemical, biological, medical, engineering and geological sciences and mathematics.

National Laboratories

The CSIR laboratories and industrial research associations working under the auspices of CSIR are grouped into six distinct disciplines.

*Physical and Earth Sciences*

The national laboratories coming under the physical and earth sciences group are : the National Physical Laboratory, New Delhi (estd. 1950), which has designed, developed and operated Sodar—an instrument for the location and measurement of thermal and velocity in homogeneities in atmosphere; the Central Electronics Engineering Research Institute, Pilani (estd. 1953, extension centres at Madras and New Delhi), which has developed 100 mw and 500 mw citizen band transreceivers (walkie-talkies); the Central Scientific Instruments Organisation, Chandigarh (estd. 1959; service and maintenance centres at Bombay, Calcutta, Madras, Lucknow, Hyderabad and New Delhi), which has developed digital IC tester, altimeter and optical thickness gauge; the National Geophysical Research Institute, Hyderabad (estd 1961), which has successfully completed the deep sesmic sounding profile along Kavali-Udipi cross-section with USSR collaboration, and the National Institute of Oceanography, Panaji (estd. 1966; regional centres at Bombay and Cochin), which is engaged in the

studies of the seas around India with a view to making judicious use of their resources

*Chemical Sciences*

The national laboratories under the chemical sciences group are : the National Chemical Laboratory, Pune (estd. 1950), which has developed processes based on which the commercial production of chloromethanes, phenthoate and monoethylaniline has been undertaken; the Central Electrochemical Research Institute, Karaikudi (estd. 1953; field stations at Madras and Mandapam), which has developed process know-how for sintered photo-conductive cadmium selenide cells, weston standard cell and aniline sulphate; the Central Salt and Marine Chemicals Research Institute, Bhavnagar (estd. 1954; field station at Mandapam), which has developed reverse osmosis and electrodialysis plants for desalination of brackish waters; the Regional Research Laboratory, Hyderabad (taken over in 1956), which has developed the process know-how for the production of silicon carbide and glass-lining of chemical process equipment—mild steel and cast iron reaction vessels, the Regional Research Laboratory, Jorhat (estd 1959; experimental farms at Imphal, Mokokchung and Shillong), which has developed technology for the production of carbon black from high-volatile coals of Assam, and the Indian Institute of Petroleum, Dehra Dun (estd 1959; field stations at Jawahar Nagar and New Delhi), which has evaluated crude oils from Bombay High region and from Assam (Galeki) and Iraq (Basrah) in order to provide basic data for processing these crudes in Indian refineries

*Biological Sciences*

The national laboratories under the biological sciences group are : the Central Food Technological Research Institute, Mysore (estd 1950; experimental stations at Anantharajupet, Bombay, Lucknow, Ludhiana, Mangalore, Nagpur and Trichur), which has developed process know-how based on which a commercial unit for filling Durofume (mixture of ethylene dibromide and methyl bromide used for fumigation of food materials) into cans manufactured in the country has been set up at Mysore, the Central Drug Research Institute, Lucknow (estd 1951), which has standardized processes for L-dopa, an imported drug used in the treatment of parkinsonism, and indomethacin an imported anti-inflammatory drug; the Central Leather Research Institute, Madras (estd 1953; extension centres at Bombay, Calcutta, Jullundur, Kanpur and Rajkot), which has developed a pancreatin like enzyme product, using pancreas of cow, sheep, buffalo and goat, for efficient removal of gelatin coatings from cellulose acetate photographic films, the National Botanical Gardens, Lucknow (taken over in 1953 research station at Banthra) which has developed know-how for mass propagation through tissue culture of *Discorea floribunda*, a commercial source of diosgenin; the Indian Institute of Experimental Medicine, Calcutta (taken over in 1956) which has developed a process for the fractionation of plasma proteins at room temperature; the Regional Research Laboratory, Jammu (taken over in 1957; field stations at Chatha, Palampur, Srinagar and Varinag), which has developed know-how for the production of progesterone from diosgenin, the Central Indian Medicinal Plants Organisation, Lucknow (estd 1959; two zonal centres at Bangalore and Jammu-Tawi and four commercial centres at Bangalore, Haldwani, Jammu and Srinagar), which is providing aromatic and medicinal plant products to the

pharmaceutical and perfumery industries; the Industrial Toxicology Research Centre, Lucknow (estd 1965), which studies the harmful effects of industrial toxins for developing preventive measures; and Tea Research Association (estd 1964), which supports scientific research and advisory work for the betterment of the tea industry in north-east India

*Engineering Sciences*

The national laboratories under the engineering group are : the Central Fuel Research Institute, Dhanbad (estd. 1950) which carries out physical and chemical surveys of Indian coals through seven stations at Bilaspur, Jammu, Jealgora, Jorhat, Nagpur, Namkum and Raniganj. The Central Glass & Ceramic Research Institute, Calcutta (estd. 1950), which has developed process know-how based on which optical glass is being commercially produced at the Bharat Ophthalmic Glass Ltd. as a result of which the entire requirement of the country for optical glass can be met from indigenous sources; the National Metallurgical Laboratory, Jamshedpur (estd. 1950; regional stations at Ahmedabad, Batala, Howrah and Madras), whose technology for sponge iron has been utilised in India's first sponge iron plant (capacity, 25-30 thousand tonnes/annum) at Vijayawada; the Central Road Research Institute, New Delhi (estd. 1952), which has developed a high-amplitude screed-board vibrator for compaction of concrete; the Central Building Research Institute, Roorkee (estd. 1953; field station at Calcutta and extension cells at Ahmedabad and Bhopal), whose construction techniques are being applied in various states for the construction of low-cost houses, the Central Mechanical Engineering Research Institute, Durgapur (estd. 1958; R&D centres at Ludhiana, Madras and Pune), which has developed a completely indigenous high-speed single stage centrifugal air compressor and tip ice maker; the Central Mining Research Station, Dhanbad (estd. 1956), whose work includes mine safety, design of equipment used in mining and development of mining machinery; the National Environmental Engineering Research Institute, Nagpur (estd. 1958, zonal laboratories at Ahmedabad, Bombay, Calcutta, Delhi, Hyderabad, Jaipur, Kanpur and Madras), which carries out research in sanitation, disposal of sewage and industrial wastes, industrial hygiene and pollution; the National Aeronautical Laboratory, Bangalore (estd. 1959), which has designed and fabricated an acoustic testing facility for conducting vibroacoustic tests on scaled structural models of aerospace vehicles in high-intensity noise environment, the Structural Engineering Research Centre, Roorkee (estd. 1965; regional centre at Madras), which does research in specialized designs and structural problems connected with buildings, bridges and other structures, the Regional Research Laboratory, Bhubaneswar (estd. 1964), which has made a study of the fifth five-year plan programme and development potentialities of Orissa and identified areas where this regional laboratory and other CSIR laboratories could render technical assistance; the Indian Plywood Industries Research Institute, Bangalore (estd 1962; field stations at Calcutta and Tinsukia), which has popularised the use of defatted groundnut cake in polywood adhesive and as a result of which considerable savings in petroleum-based synthetic resins have been effected; the Cement Research Institute of India, New Delhi (estd 1966) which has given a lead in the utilization of industrial wastes, especially fly ash and has prepared feasibility report for establishing mini cement plants in the north-eastern region of the country; the Automotive Research Association of India, Pune, which

is concerned with the testing, development, design and research facilities for the automotive and ancillary industries.

*CECON*

The Civil Engineering Consultancy Service (CECON) was set up by the CSIR in 1975. Its constituent units are : the Central Building Research Institute, Roorkee, the Structural Engineering Research Centre, Roorkee; the National Environmental Engineering Research Institute, Nagpur; the Central Road Research Institute, New Delhi; the Cement Research Institute of India, New Delhi and the National Botanical Gardens, Lucknow.

The CECON, which functions from the premises of Central Road Research Institute, New Delhi, provides international consultancy services in civil engineering, particularly to developing countries.

*Information Sciences*

The Publications & Information Directorate (PID), New Delhi (estd. 1951), and the Indian National Scientific Documentation Centre (INSDOC), New Delhi (estd. 1952), of the CSIR are engaged in dissemination of scientific and technical information. The PID brings out encyclopaedic volumes on raw material resources and industrial products under the general title 'Wealth of India', and ten scientific research periodicals besides other publications on scientific and technical information The INSDOC provides documentation and translation services and maintains a National Science Library. It also publishes Indian Science Abstracts and Annals of Library Science and Documentation and compiles a series of catalogues which list the holdings of specialised libraries and establishments. During the year 1975, INSDOC brought out two volumes of 'Regional Union Catalogue of Scientific Serials' covering Madras and Hyderabad

The CSIR also maintains two science museums. The Birla Industrial and Technological Museum, Calcutta, has eleven galleries depicting a chronological history of science and technology through working models, animated exhibits, diagrams and illustrated charts. The Visvesvaraya Industrial and Technological Museum (VITM), Bangalore, arranges workshops, mobile exhibitions, demonstration lectures, science fairs and seminars to depict advancement in science and technology, and has gallaries on electrotechnic, motive power, timber and paper and popular science.

*Fibre Technology*

Six associations conduct research in fibre technology. They are : Ahmedabad Textile Industry's Research Association, Ahmedabad (estd. 1947), which has designed a flash economizer unit for the recovery of heat from boiler blowdown; the Bombay Textile Research Association. Bombay (estd. 1954), which has developed a device for checking the runout of gears, and yarn tension meter; the South India Textile Research Association, Coimbatore (estd. 1951), which has developed know-how based on which the commercial production of 'two-for-one' twister and 'Sitralized' spindle tape, chemically treated for increased wear life of cellulosics, has been undertaken; the Silk and Art Silk Mills' Research Association, Bombay (estd 1950), which has developed ultra-violet absorbers for prevention of photodegradation of polyamide fibres; the Indian Jute Industries' Research Association, Calcutta (estd. 1966), which has developed a more economic jute bag without any polyethylene lamination for packing both phosphatic and nitrogenous fertilizers and has also developed attractive yarns from blends of jute/rayon and jute/wool; and the Wool

Research Association, Bombay (estd. 1963), which has developed a technique of computerised colour match prediction.

AGRICULTURAL RESEARCH

The Indian Council of Agricultural Research (ICAR), set up in 1929, is the national body for coordinating research, education and extension education in the fields of agriculture, animal husbandry and fisheries sciences. The Council gives support for the setting up and development of agricultural universities in states. The Department of Agricultural Research and Education in the union Ministry of Agriculture and Irrigation provides administrative support to the ICAR and co-ordinates the work of central and state agencies. The Director General of ICAR is also the Secretary to Government of India in the Department of Agricultural Research and Education.

An Agricultural Research Service has been created to facilitate optimal utilisation of available manpower and for enabling the desired mobility of scientists from one position to another as may be required in the interest of agricultural research and education. A Central Staff College for Agriculture established in Hyderabad trains the probationers of Agricultural Research Service.

The ICAR functions through a network of 30 well equipped and well-staffed research institutes, a Directorate of All-India Soil and Land Use Survey, 21 agricultural universities, 51 all-India co-ordinated projects and a few other institutions. In order to attract meritorious students to agriculture, the ICAR offers fellowships and scholarships to them

An important project in progress is the All-India Co-ordinated Project in Dry Land Agriculture. Twenty-three research centres are engaged in evolving a new technology to improve agricultural production in rain-fed areas

MEDICAL RESEARCH

Medical research in India is largely done through the Indian Council of Medical Research (ICMR), New Delhi, through a network of research institutes and centres covering a wide spectrum. The ICMR, set up in 1911, has eight permanent research institutions and centres, namely the National Institute of Nutrition. Hyderabad, Virus Research Centre, Pune, Tuberculosis Chemotherapy Centre, Madras, Cholera Research Centre, Calcutta, Indian Registry of Pathology, New Delhi, National Institute of Occupational Health, Ahmedabad; the Institute for Research in Reproduction, Bombay and the Central JALMA Institute for Leprosy, Agra.

There are two statutory bodies to conduct research in various branches of medical sciences They are the All-India Institute of Medical Sciences, New Delhi, and the Post-Graduate Institute of Medical Education and Research, Chandigarh. There is also an All-India Institute of Speech and Hearing at Mysore which has been functioning under the union Ministry of Health and Family Welfare since 1965. Clinical facilities are available at all these institutes

Study of Diseases and Treatment

Some of the institutions doing work in particular branches of medicine and treatment are the Indian Cancer Research Centre, Bombay, Cancer Institute, Madras and the Chittaranjan Cancer Research Centre, Calcutta, besides the cancer wing being developed at Safdarjang Hospital, New Delhi, as a regional institution for cancer, the National Tuberculosis Institute, Bangalore, Vallabhbhai Patel Chest Institute. Delhi, where research inchest ailments including tuberculosis is done.

Central Leprosy Teaching and Research Institute, Chingleput, which trains medical and para-medical personnel, treats leprosy patients and is recognised as a WHO regional centre for certain investigations in leprosy; the National Institute of Communicable Diseases, Delhi (previously known as the Malaria Institute of India, established in 1909) with its seven branches is engaged in research, training and rendering service in communicable diseases. It also plans, guides and evaluates the National Filaria Control Programme which has been designated as a WHO reference centre for some communicable diseases.

The All-India Institute of Hygiene and Public Health, Calcutta, set up in 1932, undertakes training and research in the field of public health, family planning, nutrition and allied matters. The Rural Health Unit and Training Centre, Singur, and the Urban Health Centre, Chelta, are attached to this institute. Biological and chemical assays of drugs are carried out at the Central Drugs Laboratory, Calcutta, which also maintains a herbarium and gives technical advice to drug manufacturers

**Micro-biology and Related Studies**

The Central Research Institute, Kasauli, is the Central Drug Laboratory for all biological products It has been entrusted with the responsibility of evolving national standards and distributing both the national and international standards for standardising biological products manufactured in the country. The institute functions as the national centre for giving expert advice both to the Government and public on rabies, yellow fever, snake-bite, cholera, typhoid, whooping cough, tetanus and diphtheria. It carries out both basic and applied research in the prevention of communicable diseases The institute is the largest and comprehensive producer of biological products in the country. Besides carrying out diagnostic tests, it provides antigens, anti-sera and technical advice regarding diagnostic procedures for the public health and hospital laboratories. The Pasteur Institute Coonoor, does research in rabies, influenza, other respiratory virus infections, diseases caused by intestinal viruses like polio, coxsackie and ECHO group and bacterial diseases like enteric fevers and syphilis It is the main centre for research on rabies and influenza in the country. It serves as the international reference centre of WHO on rabies and National Centre for Work on Influenza The King Institute of Preventive Medicine Guindy, Madras, gives post-graduate training in micro-biology, makes the supplies prophylactic vaccines, freeze-dried small-pox vaccine; anti-tetanus sera, tetanus toxoid, blood products and intravenous and special solutions of various kinds It also undertakes public health bacteriological investigations. The Haffkine Institute, Bombay, established in 1896, does research in bacteriology, experimental medicine, chemotheraph, pharmacology, pathophysiology, biochemistry, immuno-haematology, immunology and virology related to communicable and other diseases. It also undertakes drugs analysis and biological standardisation It trains scientists for post-graduate degree and provides public health laboratory services by way of diagnosis of diseases and epidemiological investigations It manufactures some bacterial and viral vaccines, anti-toxins and other biologicals including human plasma products

**DEFENCE RESEARCH**

The Defence Research and Development Organisation (DRDO), set up in 1958 by amalgamating some of the technical development

establishments of the Defence Science Organisation, has now under its control 31 research and development establishments and laboratories covering, among others, armaments, engineering, vehicles, propellants, electronics, aeronautics, rockets and missiles, metallic and non-metallic materials and composites, naval technology, which altitude and food research. The budget and manpower of the DRDO has progressively increased since its inception and particularly since 1962-63. A number of projects of direct interest to the services are in progress in different establishments of the organisation Approximately 430 items have been developed resulting in a saving to the nation of about Rs. 145 crores in foreign exchange. The DRDO maintains close liaison with scientific and technological activity within the country and abroad. About a thousand research and development projects are in progress in the various divisions of the organisation. It has set up a systems analysis group for aeronautics at Bangalore and is giving particular attention to increasing expertise in naval research and radar technology. A special group has also been set up for research in rocket and missile technology.

**DEPARTMENTAL RESEARCH**

A number of other government departments remain responsible for certain branches of research Some of them are described below.

**Geology**

The Geological Survey of India (GSI) with headquarters at Calcutta was established 125 years ago, largely for prospecting coal in eastern India. Now, the Survey is the principal agency entrusted with the task of geological mapping, regional mineral assessment, geotechnical investigations and researches on earth science and allied subjects During 1975-76, a total of 61,940 sq. km in different parts of the country was covered by mapping. About 1,06,095 metres of drilling was carried out for mineral prospecting, besides the collection and analysis of a number of geochemical samples and rock and mineral samples During 1976-77 (up to June 1977), 55,550 sq. km were covered by mapping and 97,895 metres were drilled. The results of the studies are disseminated through maps and publications brought out by the GSI which functions through 6 regional offices, 29 circle offices and 25 specialised divisions The GSI is also actively engaged in researches on earth science and allied subjects and some of the major branches of research are in modern field techniques, petrology, palaeontology, environmental geology, geophysics and geochemistry.

**Hydraulic and Power Research**

The Central Water and Power Research Station at Khadakvasala near Pune, the premier hydraulic research station in India, is recognised by the Economic and Social Commission for Asia and the Pacific (ESCAP) as its regional laboratory There are 15 other hydraulic research stations in the country and also three Soil Mechanics and Material Research Stations dealing with the problems connected with river valley projects development The Central Board of Irrigation and Power supervises and co-ordinates the work done by three research stations as well as the work done by the various power research stations on power stations and transmission systems.

**Meteorology**

The India Meteorological Department, organised on an all-India basis in 1875, is the national agency for providing services in the field of meteorology Meteorological data are collected from 1,163 observatories of different types and processed. The Department along with

the Indian Institute of Tropical Meteorology (IITM), Pune, conducts fundamental and applied research in various aspects of meteorology like weather forecasting, aviation climatology, agricultural meteorology, hydrology, space research, air pollution, seismology, radio meteorological and instrumentation. Besides, experiments in weather modifications are also conducted by IITM The Indian Institute of Astrophysics (IIA), Bangalore, and the Indian Institute of Geomagnetism, (IIG), Bombay, have been constituted as autonomous institutes along with IITM The IIA conducts research in solar physics, stellar physics, radio astronomy, cosmic radiation etc The IIG records magnetic observations, maintains magnetic observatories and conducts research in geomagnetism.

Broadcasting

The Research Department of All India Radio investigates problems of both sound broadcasting and television. The functions of the department are broadly shared by four sections—propagation and technical services, acoustics and audio engineering, research and development, prototype and production Different aspects of propagation of radio waves, from low frequency waves right up to super high frequency waves including satellite broadcasting, are investigated in the propagation divison Feasibility as well as advantages of using LF band for broadcasting in India, which is not permitted under the present ITU regulations, have been studied in detail. Important aspects of MF propagation like variation of ground conductivity with moisture content and the phenomenon of polarisation coupling loss and sea gain have been investigated. Studies on the propagation of VHF signals have been carried out to help in the planning of FM and TV services in the country. The department has one of the best equipped acoustic laboratories in the country for conducting measurements on microphone, loud speakers, absorption properties of various acoustic materials, noise insulation etc. The design and development section concentrates on development of equipments to effect import substitution. FM transmitter-receiver units for use as stand by studio-transmitter links, solid state pipe-generator along with digital clock system, 16 mm film editing tables. for use in TV stations, heterodyne eliminators, MF amplitude modulation monitors, etc. are some of the items of equipment designed, developed and produced during 1977 by the department for use in the net work The prototype division of the Department undertakes production of some of the special type of equipments developed by R&D Unit to meet the requirements of Radio and TV networks in limited quantities.

India is a member of the International Telecommunications Union (ITU). She was elected in May 1976 vice-chairman of the Study Group 10 constituted by the International Radio Consultative Committee which is an important organ of the ITU. India was also elected chairman of Interim Working Party of Tropical Broadcasting

Telecommunication

The Posts and Telegraphs Department has a telecommunication research centre (TRC) located at New Delhi It is engaged in the design and development, for indigenous manufacture, of all types of communication equipment and systems needed for the expansion and improvement of the telecommunication network of the country. During the 20 years of its existence, this research centre has designed and developed a number of systems and equipments in the field of both switching and transmission. In the recent years, the Centre is engaged in the development of such sophisticated techniques as "Electronic

Switching" and "Digital Switching" in the field of switching and Satellite Communications, Digital Transmission, Data Transmission. etc. in the field of transmission. It is also responsible for tendering advice to the Posts and Telegraphs Department on all technical matters

Anthropology

The work of the Anthropological Survey of India, with headquarters at Calcutta, includes social, psychological, economic, linguistic, physical and genetic investigations. Its regional stations are located at Dehra Dun, Mysore, Nagpur, Port Blair and Shillong. An Anthropological Museum has also been set up at Jagdalpur in Madhya Pradesh.

Aviation

The Department of Civil Aviation has a Directorate of Research and Development concerned with design and air-worthiness of civil aircraft and equipment, aircraft performance testing, development of indigenous aircraft materials, design and manufacture of prototype of gliders and training aircraft, selection of suitable aircraft types for civil operations and safety in air operations.

The Institute of Aviation Medicine, Bangalore, set up in 1957 by the IAF, deals with human problems relating to aircrew and flight safety and carries out research and medical evaluation

The Research, Designs and Standards Organisation, Lucknow, the Indian Roads Congress. New Delhi and the Forest Research Institute, Dehra Dun, conduct research with a bearing on railways. roads and timber respectively

# 8 HEALTH

The Constitution of India lays down that "the State shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties" To give effect to this directive, health has been given a due priority

Pulbic Health is primarily the responsibility of the state governments. The central government however, guides, sponsors and supports major schemes for improving the health of the people The Ministry of Health and Family Welfare co-ordinates the work of the state govermnents. The Central Council of Health advises the Ministry on policies and programmes in all their aspects.

OBJECTIVES

The primary objective of the Fifth Plan is to provide minimum public health and medical care facilities integrated with family welfare and nutrition for vulnerable groups of the population namely children, pregnant women and lactating mothers and the poorer sections. The accent is on (i) increasing the accessibility of health services to rural, hill and tribal areas, (ii) correcting the regional imbalance in health care delivery systems, (iii) further development of referal services by removing deficiencies in district and sub-divisional hospitals, (iv) intensification of the control and eradication of communicable diseases, (v) qualitative improvement in the education and training of health personnel, and (vi) development of referal services by providing specialists services in the rural areas.

PHYSICAL TARGETS AND ACHIEVEMENTS

Planned development of over two and a half decades has resulted in vastly improved health facilities The number of doctors and hospital beds has increased by more than two and a half times and that of nurses by more than five times The number of medical colleges has increased from 30, before the First Plan, to 106 at present. In rural areas, there were 5,372 primary health centres and 37,745 sub-centres in September 1977 whereas none existed before 1951 Malaria, T B and Cholera which used to take a heavy toll of life have been controlled to varying degrees. No case of plague has been reported in the country since 1967 Smallpox which was a dreaded disease has been brought to a zero level since July 1975 The general death rate has come down from 27 4 per thousand in 1949-50 to 15.9 per thousand in 1975 and life expectancy at birth has increased from 32 years to 50 years

To check the growth rate, the family welfare programme was launched as a national programme in 1952. The National Population Policy was declared by the Government of India on 28 April 1976

The Minimum Needs Programme alongwith the training of multipurpose health workers and a more vigorous pursuit of communicable diseases eradication/control programmes form the core of health care

The backward and tribal areas are now receiving preference in the implementation of the health programmes. Sub-plans for the backward areas and hilly areas are being drawn up

MINIMUM NEEDS PROGRAMME

In addition to primary health centres and sub-centres 30/40 bedded hospitals in the rural areas are functioning. During 1977-78, 86 new primary health centres are proposed to be established alongwith the

establishment of 2,814 new sub-centres and 69 rural hospitals. Though the programme is in the state sector the guidelines for its implementation are given by the central government. Besides, a rural health services scheme was launched on 2 October 1977.

MEDICAL EDUCATION RESEARCH AND TRAINING

A number of training centres for different categories of health workers i.e nurses, sanitary inspectors, para-medical workers, non-medical supervisors, physiotherapists, etc, exist now The Plan of action on the report of "Group on Medical Education and Support Manpower" for a three-tier reconstruction of the entire health care system, has been worked out. The scheme of involvement of community level workers, i.e. teachers, postmasters and gram-sevaks, after a short training, for delivery of nutrition, health and family welfare services as a package service is for implementation during 1977-78. The medical college set up in Manipur in 1972 will be further developed through North-Eastern Council during 1977-78 to function as a regional college to serve the needs of the states/union territories in the North Eastern Region.

The Indian Council of Medical Research co-ordinates and undertakes research in various disciplines

PATTERN OF INVESTMENT

The outlay during Fifth Five Year Plan is Rs 681.66 crores against Rs 423 53 crores during Fourth Plan. The outlays under broad heads for the Fifth Plan and for 1974-75, 1975-76, 1976-77 and 1977-78 are shown in table 8 1

TABLE 8 1
OUTLAY ON MAJOR PROGRAMMES FOR THE FIFTH PLAN

(*Rs in crores*)

| Programmes | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|---|---|---|---|---|
| 1. Minimum Needs Programme | 23 74 | 17 27 | 23 14 | 29 94 |
| 2 Medical Education and Research | 11 61 | 11 97 | 16 63 | 23 71 |
| 3 Training | 1 14 | 4·32 | 4·39 | 4 12 |
| 4 Control of Communicable Diseases | 26 56 | 35 13 | 44 65 | 70·10 |
| 5 I S M. & Homoeopathy | 2 65 | 3 55 | 4 68 | 6·55 |
| 6 Hospitals and Dispensaries | 12 90 | 16 73 | 27·44 | 39·76 |
| 7 Other Programmes | 3 9 | 6 18 | 5 22 | 10 90 |
| Total | 82 50 | 95 15 | 126 15 | 185·08 |

ERADICATION AND CONTROL OF COMMUNICABLE DISEASES

To eradicate and control major communicable diseases a number of national programmes are in operation e g National Smallpox Eradication Programme, National Malaria Eradication Programme and National Leprosy Control Programme besides the Control Programmes for T B, Filaria, Trachoma, Cholera and Sexually transmitted diseases

"Zero" incidence in Smallpox was achieved on 5 July 1975 and since then it is being successfully maintained. In order to combat the recent rise in the incidence of malaria and growing mosquito menace the revised strategy of selective containment has been devised and is put into operation since 1976-77

Malaria

Malaria took a toll of 7 5 lakh lives in the post-independence period. A Malaria Control Programme was, therefore, launched in 1953 In 1958 it was converted into National Malaria Eradication Programme. It succeeded in reducing the incidence from 7.5 crores in the post-independence period to only one lakh in 1965. Further, there were no deaths due to malaria in 1965 But the situation thereafter deteriorated year after year The positive incidence of malaria increased from 1.48

lakhs in 1966 to 64 1 lakhs in 1976 This was due partly to vector mosquitoes having developed resistance to DDT and partly to ineffective supervisory services The Government has taken suitable measures to control malaria effectively

Training of personnel in methods of malaria eradication is given at the National Institute of Communicable Diseases. Delhi, and the regional co-ordinating organisations at Bangalore, Bhubaneswar, Hyderabad, Lucknow, Shillong and Vadodara

Smallpox

Smallpox was another great killer before 1947 So the National Smallpox Eradication Programme was launched in 1962 with emphasis on intensive primary vaccination campaign and revaccination of vulnerable groups of population Consequently, the incidence of smallpox declined continuously. To eliminate the smallpox foci an intensive smallpox eradication campaign was launched from the middle of 1973 with the emphasis on active search for smallpox cases followed by containment of detected outbreaks As a result the incidence of smallpox was brought down to zero in July 1977 Surveillance activities were, however, continued The country had been declared to have eradicated smallpox by the International Assessment Commission on 23 April 1977

Leprosy

The National Leprosy Control Programme has been operating since 1955 The number of people exposed to leprosy risk is about 37.2 crores, of which 21 2 crores have been covered so far The estimated leprosy cases are about 32 lakhs, of which about 8 lakhs are infectious About 15.7 lakh cases have been recorded and are being given treatment through 364 leprosy control units, 3,191 SET (Survey. Education and Treatment) centres, 147 Urban Leprosy Centres and 47 Temporary Hospitalisation Wards (each of 20 beds), 231 Leprosy Homes and hospitals having 28,000 beds Forty-two Reconstructive Surgery Units are also working for prevention and corrections of deformities of hands, feet and face

Forty national and eight international voluntary organizations are also participating in the programme with their men, money and material

Training of medical and non-medical personnel is conducted through 31 (23 government and 8 voluntary) training centres and Central Teaching and Research Institute, Chingleput, Tamil Nadu, also conducts research. The Japanese Leprosy Mission for Asia (JALMA). Agra, taken over and renamed Central Leprosy Research Institute, is now working under the Indian Council of Medical Research

The Leprosy Advisory Committee has been reconstituted as National Leprosy Advisory Committee as a high power body for the National Leprosy Control Programme and to formulate new policies relating to the programme.

Filaria

The National Filaria Control Programme has been in operation since 1955 It is estimated that 13 6 crore people are exposed to the risk of filariasis with 1.4 crores having manifestation of the disease and 1 8 crores with filarial parasites in their blood

Activities under the programme are at present confined only to anti-larval operations in urban areas where 146 filaria control units provide protection to 2 1 crore persons Nine filaria clinics are also functioning in rural areas Besides, 12 Headquarters Bureaux are also

functioning at the state level. So far, only 150 out of 290 districts in the endemic states have been surveyed. During the Fifth Plan, 31 survey units would be set up for delimination of the problem in the remaining 130 districts. Of these 17 have been established.

Training in filariology is given at the three Regional Filaria Training and Research Centres at Calicut (Kerala), Rajahmundry (Andhra Pradesh) and Varanasi (Uttar Pradesh).

**Tuberculosis**

Nearly 90 out of every one lakh people die of TB every year in the post-independence period. The BCG Vaccination Programme was started in 1949. About 25.25 crore persons had been tuberculin tested and 22 06 crore persons vaccinated till August 1977. Vaccination of new borns in maternity institutions is being gradually expanded Estimates indicate that there are about 90 lakh radiologically active TB cases, of which nearly 22 lakhs are infectious Over 600 clinics have been set up, of which 307 have been upgraded as District TB Centres to undertake district-wise TB Control Programme Nearly 42,500 TB beds are available for in-patient treatment Seventeen centres provide training facilities to the medical and para-medical personnel in different parts of the country. The National TB Institute, Bangalore, conducts re-orientation courses for medical and para-medical personnel from different states for the implementation of the district TB programme. The Institute also carries out operational research in the field of tuberculosis Steps are being taken to increase the production of BCG vaccine to meet increased requirements.

The voluntary TB organisations including the Tuberculosis Association of India, which is the largest voluntary organisation, also assist in combating the disease There are more than 200 State and District TB Associations all over the country

**Venereal Diseases**

At present, 237 clinics for venereal diseases are functioning in the country. Training facilities in VD control are available at the Training Centre, Safdarjang Hospital, New Delhi, and the Institute of Venereology, Government General Hospital, Madras A second VDRL Antigen production unit at Calcutta and a mobile VD unit at Delhi have also started functioning

In order to bring out consciousness and awareness on the part of the public in regard to sexually transmitted diseases and the factors responsible for their spread a workshop on Sexually Transmitted Diseases was held in December, 1975 in Delhi, Clinicians, microbiologists, administrators, social scientists and educationists participated in the deliberations of the workshop. Great stress was laid in regard to health education aspects of sexually transmitted diseases by various media available A uniform pattern of treatment was recommended for the various sexually transmitted diseases by the Workshop

**Trachoma**

The National Trachoma Control Programme, which was started in 1963, continues to be in operation in Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Punjab, Rajasthan, Uttar Pradesh, Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Delhi, Goa, Daman and Diu, Mizoram, Arunachal Pradesh, Lakshadweep, Pondicherry and Tripura.

Cancer

At present 110 general hospitals offer facilities for cancer treatment by surgery, radio therapy and chemotherapy. Research into problems of cancer is conducted at 16 hospitals and institutes situated in various parts of the country. It is proposed to upgrade some of the existing cancer institutions to regional cancer centres for undertaking more intensive cancer research.

The Indian Council of Medical Research has initiated collaborative studies on oral, cervical and breast cancer at various centres in the country.

The Report of the Cancer Assessment Committee which was constituted to assess the requirements of staff, equipment and other requirements of various institutions for being upgraded to Regional Cancer Centres had been examined After considering various aspects of the report, it was decided (i) to develop three institutions as regional centres for research and treatment in cancer at Calcutta, Madras and New Delhi, (ii) to set up 9 Cobalt Therapy Units at Bhopal, Calicut, Cuttack, Gauhati, Gorakhpur, Jodhpur, Panaji, Patna and Srinagar.

Twelve Cancer Hospitals are totally involved in cancer therapy and research in India. Besides, certain aspects of the work in the field of cancer are being undertaken at five more institutions Clinical aspects of cancer are being carried out at many of the hospitals and institutions where facilities are available

HOSPITALS AND DISPENSARIES

Medical service is primarily provided by the state Governments. Certain charitable voluntary and private institutions also provide medical relief. The Central Government Health Scheme is at present in operation in 11 big cities covering about 15 lakh beneficiaries The district and sub-divisional hospitals are being further developed by removing deficiencies for referal services The number of additional beds added during the first two years of Fifth Plan is about 13,000 making a total of about 3 lakh beds in the country by the end of March, 1976 as compared to 1.13 lakhs in 1956-57 The bed population ratio, however, remained at the level of 0 49 beds for 1000 population despite the establishment of additional beds This is due to rise in the population. A target of establishing about 6,400 additional beds has been set for 1977-78 The number of doctors at the end of 1976 was 2,09,333 and 98,403 nurses were registered in 1974 by the Nursing Council of India

Central Government Health Scheme

The Central Government Health Scheme was launched in July 1954 for central government employees and their families in Delhi and New Delhi. Now it also covers Allahabad, Bombay, Calcutta, Kanpur, Madras, Bangalore, Hyderabad, Meerut, Patna and Nagpur. Central government pensioners and widows of central government employees, who are getting family pension, are also eligible for the scheme The staff and families of certain autonomous and semi-government organisations in Delhi, Members of Parliament and Delhi Police employees and their families are also covered by it In certain selected areas in Delhi, the scheme has been extended to the public on payment of prescribed charges.

The total number of families covered by the scheme was about 4 04 lakhs in 1976-77 accounting for about 17.04 lakh beneficiaries

Primary Health Centres

The primary health centre forms the base of the integrated structure of medical services in the rural areas At the end of September 1976

5,372 centres were functioning in the country. Of these over 1,290 are planned to be upgraded to 30-bed rural hospitals in the Fifth Plan. They will provide specialist treatment and better diagnostic facilities. The primary health centres and sub-centres will also provide basic medical care to the community through multi-purpose health workers It is proposed to have a male as well as a female health worker for every 10,000 population.

INDIAN SYSTEMS OF MEDICINE

The Indian systems of medicine are very popular among the rural population. They consult hereditary vaidyas and hakims who practise medicine as a family profession. About 2 5 lakh registered practitioners are practising these systems. In addition, 13,000 dispensaries and 200 hospitals are also functioning in the country. An amount of Rs 10 85 crores has been provided in the Central sector and Rs 15 50 crores in the State sector for the development of these systems during the Fifth Plan

The Central Council of Indian Medicine, which was set up in 1971, has finalised the curriculum and minimum standards of education in the Indian systems of medicine.

UNDER-GRADUATE EDUCATION

There are 89 Ayurvedic, 15 Unani and one Siddha under-graduate Colleges in the country. Out of these about 51 Ayurvedic and 8 Unani Colleges are run by voluntary organisations Majority of the colleges are, however, affiliated to the respective universities in the state in which they are established The central government provides partial financial assistance to some of the private-run colleges under these systems of medicine for construction of college buildings, purchase of equipment, etc , up to a maximum of Rs 5.00 lakhs So far, financial assistance has been given to 16 undergraduate colleges of Indian systems of medicine run by voluntary organisations.

POST-GRADUATE EDUCATION

Besides two full-fledged post-graduate institutions in Ayurveda at the Banaras Hindu University, Varanasi, and Gujarat Ayurved University, Jamnagar, there are 15 post-graduate departments in Ayurveda, two in Unani and two in Siddha which are functioning in Andhra Pradesh, Kerala, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, Orissa and West Bengal All the post-graduate institutions and departments are wholly financed by the Government of India A National Institute of Ayurveda was established at Jaipur early in 1976 It is also proposed to set up a National Institute for Unani in Delhi

Homoeopathy

There are 94 institutions imparting training in homoeopathy which have been recognised by various State Boards and Councils Eight of these are government institutions The Homoeopathic Advisory Committee advises the central government on the development of homoeopathy

The Homoeopathic Pharmacopoeia Committee has brought out the first volume of the Homoeopathic Pharmacopoeia of India and the second volume has been finalised.

Under the Homoeopathic Central Council Act, 1973, a Central Council of Homoeopathy was set up on 8 August 1974 It determines the minimum standards of homoeopathic education throughout India and maintains a central register of homoeopathic practitioners.

**Nature Cure** The Nature Cure Advisory Committee in the Union Ministry of Health and Family Welfare is responsible for the development of nature cure. The central government gives grants to nature cure research and educational institutes

**RESEARCH** A Central Council for Research in Indian Medicine and Homoeopathy established during 1969 is responsible for initiating, conducting and co-ordinating scientific research in different aspects—fundamental and applied—of the Indian Systems of Medicine, Homoeopathy and Yoga. The Council has 15 full-fledged research institutions and about 115 research units for carrying out multi-disciplinary research The Council has undertaken many other schemes. Drug Research, Literary Research, Clinical Research, Mobile Clinical Research and survey of medicinal plants in the various parts of the country In addition, the Council has also evolved an Ayurvedic Medical Kit and published books containing simple remedies in Siddha, Unani and Homoeopathy for common ailments and some more books are under publication. A Research Unit at Laddakh for research on 'Emchi system of medicine' has been established

**PHARMACY** The Government of India has decided to give financial assistance to state governments for development of State Pharmacies and herb garden up to a ceiling of Rs 8 00 lakhs per pharmacy. In addition, it is also proposed to set up a Central Pharmacy as a public sector undertaking

**PHARMACOPOEIA** The first volume of the standard Ayurvedic Formulary for 444 compound formulations has been finalised and is under publication The Unani and Siddha formularies are also being finalised

**YOGA** A Central Research Institute (Yoga) has been established at New Delhi as a registered society

**CONTROL AND MANUFACTURE OF DRUGS** The Drugs and Cosmetics Act regulates the import, manufacture, sale and distribution of drugs and cosmetics in the country Under the Act, the import, manufacture and sale of sub-standard, adulterated or misbranded drugs are prohibited The union government is empowered to check the quality of imported drugs. co-ordinate the activities of the states, lay down regulatory measures and standards of drugs and grant approval for import or manufacture of new drugs The control over the quality of drugs which are manufactured, sold and distributed in the country is exercised by the state governments. Zonal offices of the Central Drugs Standard Control Organisation functioning at Bombay, Calcutta, Ghaziabad and Madras maintain close liaison with the state organisations for enforcement of the provisions of the Drugs and Cosmetics Act. The Central Drugs Standard Control Organisation arranges training programmes for personnel concerned with Drugs Standard Control

The Central Drugs Laboratory, Calcutta, functions as the testing laboratory for imported drugs as well as the appellate laboratory under the Drugs and Cosmetics Act to test samples of drugs sent to it by courts The Central India Pharmacopoeia Laboratory, Ghaziabad, tests samples of non-biological drugs and draws up standard of drugs included in the Indian Pharmacopoeia

**Prices of Drugs**

The prices of drugs (excluding ayurvedic, unani and homoeopathic medicines) are regulated by the Drugs Price Control Order, 1970 which prescribes a fomula for retail selling price of drugs. Prior approval of the government is necessary for revising the prices of the existing drugs or for fixing the prices of new introductions On the recommendations of a working group, the government has fixed the selling prices of 31 important bulk drugs and gelatine capsules. No retailer can sell any formulation to a customer at a price exceeding the retail price of that formulation as displayed on the label or the price list, whichever is less.

**Vaccine Manufacture**

The BCG Vaccine Laboratory, Guindy, Madras, is one of the largest vaccine producing laboratories in the world It supplies biologicals (PPD, Tuberculin and freeze dried BCG vaccine) free of cost to the states and union territories under the Centrally-sponsored scheme. The laboratory is being expanded to enhance the production of BCG from 3 crore doses at present to 6 crore doses by 1978-79.

The Central Research Institute, Kasauli, supplies vaccine for TAB, cholera, rabies, influenza, antivenom sera and tetanus toxoid.

The Haffkine Institute at Bombay manufactures vaccines, antitoxins and other biologicals.

**Objectionable Advertisements**

The Drugs and Magic Remedies (Objectionable Advertisements) Act, 1955 prohibits the publication of objectionable advertisements relating to sexual stimulants, alleged magic cures for venereal diseases and diseases peculiar to women The Act, amended in 1963, also controls the import and export of objectionable advertisements in liaison with the customs and postal authorities who can intercept articles suspected to contain objectionable advertisements

**Medical Depots and Factories**

The Medical Stores Organisation, with six units at Bombay, Calcutta, Gauhati, Hyderabad, Karnal and Madras procures and ensures supply of quality medical stores and equipment to about 20,000 indenting hospitals and dispensaries all over the country at the most economical rates It also receives supplies from international agencies like UNICEF and WHO and distributes them to the beneficiaries. It also arranges relief supplies to the victims of natural calamities in the affected areas

At the factories of the organisation at Bombay and Madras, a large number of drugs and dressings are manufactured to meet the requirements of the indenting units and for National Malaria Eradication Programme

## HEALTH EDUCATION

The Central Health Education Bureau, set up in 1956, co-ordinates and promotes health education through various national and state health programmes The main activities of the Bureau, which has six technical divisions, are to interpret the policies and programmes of the Ministry of Health and Family Welfare, to train key health and community welfare workers in health education and research methods; to evolve effective methodology and tools of training, to prepare and distribute type health education material to states and other agencies; to render technical and other assistance to official and non-official agencies engaged in health education work; to develop health education syllabi for different age groups of school children and teacher training courses at various levels; and to cooperate and colla-

borate with international agencies in promoting health education activities

The Bureau publishes two monthly journals 'Swasth Hind" in English and "Arogya Sandesh" in Hindi to focus attention on major public health problems. It organises exhibitions on health and family welfare and other allied subjects.

The Bureau conducts Diploma Course and Certificate Course in Health Education.

It also deals with development of health education bureaux in the states and union territories. So far nineteen states and five union territories have set up health education bureaux units. Seventy-two district health education units have also been set up

MEDICAL EDUCATION, TRAINING AND RESEARCH

To promote medical education, 106 medical colleges, as against 30 in 1950-51, 15 dental colleges and 11 other institutions are functioning in the country. Establishment of new medical colleges and expansion of the existing ones have raised admission capacity from 2,500 in 1950-51 to over 12,500 in 1973-74 The doctor-population ratio, which was 1 : 5,150 in 1968, has improved to 1 : 4,200 (provisional) by 1975.

Training of Nurses

Facilities for the training of nurses exist in all major hospitals and in Colleges of Nursing at Ahmedabad, Bangalore, Bombay, Chandigarh, Hyderabad, Indore, Kanpur, Calcutta, New Delhi, Poona, Trivandrum and Vellore. State governments and non-official organisations also organise various courses including auxiliary nurse-midwife courses with help from the central government.

There are 266 nursing schools, 24 health visitors' schools, 330 ANM schools and 8 colleges of nursing which qualify 4,963 nurses, 4,473 ANMs and 584 health visitors per annum respectively. Post Basic diploma/certificate courses are offered for qualified nurses in public health nursing, paediatric nursing, psychiatric nursing, nursing education and nursing administration Eight colleges offer post basic B.Sc degree for qualified nurses and two colleges offer master's degree in nursing

Research

The Indian Council of Medical Research initiates, develops and co-ordinates medical research in the country It is financed mainly by the Government of India The Council maintains, besides a number of semi-permanent units, eight permanent research institutes and centres, namely, the National Institute of Nutrition, Hyderabad, Virus Research Centre, Poona, TB Chemotherapy Centre, Madras, Cholera Research Centre, Calcutta, Indian Registry of Pathology, New Delhi, National Institute of Occupational Health, Ahmedabad, the Institute for Research in Reproduction, Bombay and the Central JALMA Institute for Leprosy, Agra.

NUTRITION

The Health Services fight malnutrition through the network of Medical and Health Centres State Nutrition Divisions were set up in the Health Directorates of 18 states and 2 union territories to assess the diet and nutritional status in various groups of population, conduct nutrition education campaigns, supervise supplementary feeding programmes, other nutritional amelioratic measures, baseline surveys and evaluation of the Applied Nutrition Programme. These Divisions are also responsible for monitoring the nutritional status of the popula-

tion in areas affected by natural calamities such as flood and drought. On the recommendation of the Central Coordination Committee for Nutrition Programmes action is being taken to establish State Nutrition Divisions in the remaining 4 states and 7 union territories.

Surveys conducted by the State Nutrition Divisions and the National Nutrition Monitoring Bureau have revealed that the protein calorie malnutrition and deficiency diseases are prevalent in large sections of the population. The most affected are young children, pregnant and lactating mothers. A number of Departments of the Government of India are implementing Nutrition Programmes. Most of the programmes which have been started are in the form of supplementary Feeding Programmes. Important among them are the school Mid-day Meal Programme for primary school children and special Nutrition Feeding Programme for pre-school children and pregnant and lactating mothers. The number of beneficiaries covered by these two-schemes are about 151 lakhs. Under the Applied Nutrition Programme the population in rural areas is encouraged and educated for production and consumption of nutritious foods such as leafy vegetables, fruits, fish and eggs. A scheme known as the 'Integrated Child Care Development Services' has been introduced. Under the scheme a package of services such as Supplementary Nutrition Education, Family Welfare Services and safe water supply will be provided to the vulnerable groups in 33 selected blocks including urban, rural and tribal areas.

To prevent blindness among children due to vitamin-A deficiency in their diet, a concentrated dose of vitamin-A is given orally every six months through health centres. This programme covered about 81 lakh beneficiaries during the Fifth Plan period. Similarly to prevent nutritional anaemia among women and children, combined tablets of iron and folic acid are being distributed through health centres. The programme covered 2 crore beneficiaries during the Fifth Plan period.

The National Institute of Nutrition, Hyderabad, is the principal organisation in India for nutrition research and training of nutrition workers.

Modern Bakeries

Modern Bakeries (India) Ltd., a public sector undertaking set up in 1965 produces hygienically prepared nutritious bread as well as buns, nans and roties. The Company has at present 11 manufacturing units located at Ahmedabad, Bangalore, Bombay, Calcutta, Chandigarh, Cochin, Delhi, Hyderabad, Kanpur, Madras and Ranchi.

## PREVENTION OF FOOD ADULTERATION

The Prevention of Food Adulteration Act, 1954 had been in force since 1 June 1955. By and large, it is implemented by the local bodies in various states and union territories, but due to financial stringencies and other factors the local bodies have not been able to appoint whole-time food inspectors, establish food laboratories and implement the Act with the vigour it needed. Maharashtra had established a separate department to deal with food and drug adulteration whereas the States of Kerala, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Orissa, Punjab and West Bengal have appointed whole-time food inspectors. The Act was first amended in 1964, but finding it inadequate to meet the prevailing conditions, it was again amended and brought into force from 1 April 1976. The amended Act provides for deterrent punishment including life imprisonment with fine.

The central government had established a special cell consisting of 6 food inspectors and ancillary staff in the Directorate General of Health Services in 1972, whose main function is to check the adulteration of food at inter-state level, supervise, guide and coordinate the activities of state governments and local bodies

The Central Food Laboratory, Calcutta, whose opinion is final and conclusive evidence for cases referred to by the courts, also carries out investigational work in relation to standardising methods of analysis and in reviewing food standards The laboratory has been strengthened with the Training Unit and Microbiology Unit and Pesticide and Residue Analysis Unit Another Food Research and Standardisation Laboratory has been set up at Ghaziabad

To meet the paucity of trained analysts in the country a training programme had been started at Central Food Laboratory, Calcutta for inservice training to chemists working in laboratories of states/local bodies Thirty-four analysts have been trained upto the end of December 1975

During the First Five Year Plan, an amount of Rs 4 25 crores has been provided for establishing eight new Food and Drug laboratories and development of the existing ones in the states

Water Supply and Sanitation

The National Water Supply and Sanitation Programme was launched in 1954 as part of the Health Plan to assist the states in their urban and rural water supply and sanitation schemes so as to provide adequate water supply and sanitation facilities in the entire country A Central Public Health and Environmental Engineering Organisation (CPHEEO) was also set up in 1954 to provide technical advice and guidance to state governments in the preparation and execution of their schemes The programme and the organisation were transferred to the Union Ministry of Works and Housing in February 1973 By September 1977, 1,890 towns had been provided with water supply benefiting a population of 10 crores (about 90 per cent of the total urban population) Also 217 towns with a population of four crores (36 per cent of the total urban population) had been covered by partial sewerage system Of the 5 76 lakh villages, about 64,000 with a total population of about 5 crores had been provided with pipe water supply and hand pump tube wells up to March 1976 Of the remaining villages about 4 22 lakhs have some kind of water supply like conserved wells and springs but in about 90,000 villages water is not available within a depth of 15 metres or a distance of 1 6 km A budget provision of Rs 40 crores has been made for 1977-78 for providing water supply systems in villages This is in addition to the annual plan allocation of Rs 80 crores in the state sector

## FAMILY WELFARE

Family Planning as an official programme was adopted in 1952 as it was recognised that a rapidly growing population would be more a hindrance than of help in raising the standard of living of the people During the First and Second Five Year Plans (1951-1961), the Programme was taken up in a modest way with a clinical approach The stress was mainly on research in the field of motivation, communication, demography, physiology of reproduction and on the extension of central and state organisations in providing clinical services The programme was reorganised in the Third Plan after the publication of the 1961 census results which showed a higher growth rate

than anticipated The clinical approach was supplemented by extension approach under which the message, services and supplies of contraceptives were taken to the people. A full-fledged Department was created in 1966. During the three Annual Plans (1966-69) the family planning programme, which was described as the 'kingpin' of the Plan, was made time bound and target oriented with vastly increased funds *In the Fourth Plan, the programme was accorded the 'highest priority'.* In the Fifth Plan also the programme has highest priority and continues as a centrally-sponsored programme up to 1983-84. The approach during the Fifth Plan is to increasingly integrate family welfare services with those for health, maternal and child care and nutrition The family welfare workers will thus be converted into multi-purpose workers who will be able to pay special attention to purveying family welfare motivation and services.

A sum of Rs 497 36 crores had been provided for this programme during the Fifth Plan as against an expenditure of Rs 14 lakhs in the First Plan, Rs 2.16 crores in the Second Plan, Rs 24.86 crores in the Third Plan, Rs 70.46 crores in the three Annual Plans and Rs 284.43 crores in the Fourth Plan.

Implementation Machinery

The programme is implemented through the state governments for which cent per cent central assistance is provided. In rural areas, the programme will be further extended through the Minimum Needs Programme so as to reach the remotest areas. The scheme envisages (a) one primary health centre for each community development block; (b) one sub-centre for a population of 10,000; (c) making up the backlog and deficiencies in buildings, staff and equipment; (d) provision of drugs at the enhanced level of Rs 12,000 per annum per primary health centre and Rs 2,000 per annum per sub-centre; and (e) upgrading one out of every four primary health centres to a 30-bed rural hospital.

The Central Family Welfare Council advises on family welfare programmes at the national level. A number of central committees, like the Research Co-ordination Committee, have been set up to study the progress of research programmes.

Voluntary organisations and private medical practitioners are also associated to make the maximum use of available resources for optimum results The programme is implemented through 5,132 rural, 1975 urban family welfare centres and 33,370 sub-centres. Besides, 5,780 other institutions also render services.

NATIONAL POPULATION POLICY

The National Population Policy announced in April 1976 has been revised. The important features of the revised policy are :

(i) provision of all family welfare and recanalisation services free of charge;
(ii) importance being given to the maternal and child health programme;
(iii) improvement of women's educational level through formal and non-formal channel;
(iv) raising the minimum age of marriage to 18 for girls and 21 for boys;
(v) treating the population figures of 1971 census as the base till the year 2001 in all cases where population is a factor in the allocation of the central assistance to State Plans, devolution of taxes, duties and grants in aid;

(vi) linking 8 per cent of Central assistance to State Plans with their performance and success in the family welfare programmes;

(vii) greater attention to the population education;

(viii) full utilisation by the central and state governments of all media of publicity including motivation through the extension approach, for promoting the family welfare programmes;

(ix) greater utilisation of the voluntary organisations and the organised sector for promoting the family welfare programme,

(x) full rebate in the income tax assessment for amounts given as donations for family welfare performance to Government, or any approved local body voluntary organisation etc.;

(xi) special attention to research in reproductive biology and contraception;

(xii) involvement of other Ministries and Departments of the Government of India as well as of the states in the family welfare programme, and

(xiii) intensive and careful and monitoring of family welfare programme in the States and a review in depth of the situation by the Union Cabinet

## PERFORMANCE

Sterilization and IUD

A significant feature of the year 1976-77 was the improved overall performance of all the methods as compared to that in the previous year. In respect of sterilization, the performance went up from 26 7 lakhs in 1975-76 to 82.6 lakhs (provisional) in 1976-77, thereby registering an increase of 209 per cent. The target was over-reached by about 92 per cent at national level and as many as 18 States and 5 union territories exceeded their targets

IUD programme also saw a decrease in the performance from 6 1 lakhs in 1975-76 to 5 8 lakhs (provisional) in 1976-77, thereby registering a decrease of 5 per cent Copper T, an improved version of IUD, accounted for 42,264 of the total number of IUD inserted in 1976-77

Nirodh

During 1976-77, 9.8 crore pieces of Nirodh were sold under the commercial scheme operated through a net-work of over 2 5 lakh retail shops by 14 leading consumer goods marketing companies in India

Oral Pills

The Oral Pill programme was extended to all the urban centres including those run by local bodies and voluntary organisations and those P H Cs where the programme could be monitored and patients followed up Now the pills are being distributed through 1,780 rural and 2,047 urban centres/hospitals in the country.

Performance in (1977-78)

The performance from April to July 1977 showed a substantial downword trend as compared to the corresponding period of the previous year. Since inception of the programme 272 9 lakh sterilizations and 67 lakh IUD insertions have been done, giving a rate of 44 per thousand population for sterilization and 10 8 for NUD insertions, up to 31 July 1977.

**Impact of the programme**

It is estimated that 24 per cent of the estimated total of 10.5 crore eligible couples whose wives are in the reproductive age group 15-44 are currently protected by one or another of the approved methods of family welfare as on 31 March 1977. States like Andhra Pradesh, Gujarat, Haryana, Kerala, Maharashtra, Orissa, Punjab and Tamil Nadu have protected much higher percentage of eligible couples than the all India percentage. It is estimated that as a result of work done up to 31 March 1977, 291 lakh (provisional) births have been averted and that the national birth rate would be 34.3 per thousand (provisional) for 1976-77. According to the estimates of birth rates based on sample registration scheme of the Registrar General, states like Karnataka, Kerala, Maharashtra and Tamil Nadu have already reached the birth rate of 30 per 1000 of population, the target fixed for the Fifth Five Year Plan

**Medical *Termination* of Pregnancy**

The programme of medical termination of pregnancies through well trained doctors in well equipped/approved hospitals is essentially a health care measure But in a way, it supplements the family welfare programme as it provides for legalised abortion in cases of contraceptive failures also. A good proportion of the acceptors of abortion go in for some form of contraception like sterilization, IUD, etc Since its inception in April 1972, it has continued to make good progress During 1976-77, 2,50,620 terminations were done, as compared to 2,06,710 in 1975-76, thereby registering a 21 2 per cent increase. The number of terminations done from April to July 1977 was 69,902. Since the inception of the programme, a total of 7,16,100 terminations have been done So far 60 Senior Gynaecologists drawn from medical colleges as well as from district hospitals have been trained abroad under the WHO sponsored programme in the advanced techniques of medical termination of pregnancy and 164 hospitals in the country have been approved to provide training in MTP techniques to doctors to be drawn from various district hospitals and PHCs. With the assistance of WHO, ICMR has undertaken research in short term sequalae and complication of induced abortion in 16 centres in India Eleven of these centres will also provide training in advance technique of MTP and sterilization to gynaecologists from contiguous states. With these measures, this programme is expected to get a boost further in the coming years.

**Maternal and Child Health programme**

This programme is an important and crucial component of the family welfare programme as with better maternal and child health care, the performance is expected to go up The services under this programme consist of immunisation (D.P T ) to expectant mothers, pre-school and school children, prophylaxis against nutritional anaemia among mothers and children and against night blindness due to vitamin 'A' deficiency A sum of Rs 2 5 crores has been provided for the programme during 1977-78

**Post-partum Programme**

This programme, aimed at propagating the message of family welfare among women attending hospitals for delivery and abortion, is now extended to 449 hospitals as against 324 last year

**Training**

The training programme under the Multipurpose Workers Scheme is being implemented in 70 selected districts in the first phase District level officers, medical officers, Block Extension Educators and other

category of personnel are being trained in the Central Health and Family Welfare Training Centres

Motivation and Education

The family welfare programme in India depends on its voluntary acceptance by the people To approach over 10 crore literate and illiterate couples in the reproductive age group, living in urban and remote rural areas, a broad based Mass Education and Motivation Programme has been launched Besides mass media like the Press, the Films, the Radio and the TV, oral and visual communication media like song and drama troupes and inter-personal communication through a network of extension education workers are being used on an extensive scale Population education is also being introduced in school curricula Out-of-school-adults are also being educated through the functional literacy classes. Co-operation and assistance of all official and non-official agencies working in the field of development like trade unions, co-operatives, panchayats and other local institutions are also enlisted for promoting the programme The Mass Mailing Unit of the Department of Family Welfare disseminates information in the form of printed materials (including booklets, folders and journals) to various categories of opinion leaders through direct mail service. The list includes over 10 lakh addresses

Research and Evaluation

Research activities continued in the field of demography and communication action through 12 Demographic and/or Communication Action Research Centres situated in 9 states Similarly bio-medical research in the field of reproductive biology and fertility control is being done in the Indian Council of Medical Research, Council of Scientific and Industrial Research, All India Institute of Medical Sciences, National Institute of Family Welfare and Central Council of Research in Indigenous Medicines and Homoeopathy. The Cordination Committee on Biomedical Research was reconstituted on 29 January 1976

# 9 SOCIAL WELFARE

Social welfare activities in the country find their inspiration in the Indian Constitution which postulates the goal of a welfare state. Article 38 of the Constitution enjoins that the state shall strive to promote the welfare of the people by securing and protecting as effectively as it may, a social order in which justice—social, economic and political—shall inform all the Institutions of the national life. They also enjoin the State to ensure that 'the health and strength of workers, men and women, and the tender age of children are not abused and that citizens are not forced by economic necessity to enter avocations unsuited to their age and strength', and that 'childhood and youth are protected against exploitation and against moral and material abandonment'

The social welfare services in the last 26 years have sought to serve the development and rehabilitation needs of the weaker sections of society, especially the physically and socially handicapped and women and children from the vulnerable sections of the community in rural and tribal areas and urban slums.

### EXPENDITURE ON WELFARE PROGRAMMES

The expenditure on social welfare programmes since the beginning of the First Plan is given in table 9.1.

TABLE 9 1
EXPENDITURE ON SOCIAL WELFARE

(*Rs Crores*)

| | First Plan | Second Plan | Third Plan | 1966-69 Annual Plans | Fourth Plan |
|---|---|---|---|---|---|
| Centre | 1 60 | 8 49 | 12 84 | 7.76 | 65 71 |
| States | — | 4 95[1] | 5 63 | 3 20 | 9 67 |
| Union Territories | — | — | 0 93 | 0 60 | 1 43 |
| TOTAL | 1 60 | 13 44 | 19 40 | 11 56 | 76 81 |

[1]Includes Union Territories

### SOCIAL WELFARE ADMINISTRATION

#### Department of Social Welfare

India being federal in structure, the responsibility for implementation of welfare schemes rests with both the centre and the state governments The centre is also responsible for formulating the nation's policy for social welfare services and co-ordinating, guiding, prompting and promoting the implementation of welfare services by the states The Department of Social Welfare was created on 14 June 1964 by pooling together different welfare programmes which were hitherto administered by different ministries in the Government of India. It is responsible largely for three important vulnerable groups, i e women, children and the physically, mentally and socially handicapped.

#### Central Social Welfare Board

The Central Social Welfare Board (CSWB), was set up in 1953 to promote and accelerate voluntary action, throughout the country. The chairman of the Board is appointed by the Government of India from amongst prominent women social workers. Among its main activities are : survey of the needs of social welfare organisations, evaluation of their programmes and co-ordination of the assistance given by

various central ministries and state governments and render financial assistance to voluntary welfare agencies. The Board also promotes the development of voluntary organisations in areas where they do not exist as well as social welfare activities for the welfare of the family, women, children, the handicapped and assistance in cases of unemployment, under-employment, old age, sickness, disablement and other cases of undeserved want.

Annual Expenditure

The Annual plan expenditure during 1975-76, 1976-77 and outlay for 1977-78, under major heads for the centre and centrally sponsored programmes is given in table 9 2

TABLE 9 2
ANNUAL PLAN EXPENDITURE

(Rs lakhs)

| Scheme | Expenditure 1975-76 | 1976-77 | B E 1977-78 |
|---|---|---|---|
| Family and child Welfare projects | 62 00 | 33·50 | 19 35 |
| Functional literacy | 34 06 | 22 24 | 57 50 |
| Condensed courses of education for employment and vocational training for adult women | 46 00 | 55 00 | 80 00 |
| Socio-economic programmes | 50 00 | 59 97 | 120 00 |
| Hostels for working women | 81 80 | 90 04 | 161 50 |
| Expansion and improvement of national institutes for the handicapped | 27 95 | 20 74 | 65 00 |
| Scholarships, research, training, sheltered employment and grants-in-aid to voluntary organisations for the welfare of the handicapped | 89 59 | 118 19 | 120 00 |
| National institute of social defence | 3 50 | 4 00 | 7 00 |
| National institute of public cooperation and child development | 21 00 | 12 00 | 8 00 |
| Social work education and training | 56 83 | 45 40 | 33 30 |
| Planning, research, evaluation and monitoring | 10 13 | 10 00 | 13 00 |
| Grants-in-aid to all India voluntary organisations | 39 46 | 39 94 | 45 00 |
| Grants-in-aid to voluntary organisations by the CSWB | 175 00 | 180 99 | 210 00 |
| Education work for Prohibition | 3 00 | 3 80 | 5 00 |
| Services for children in need of care and protection | 132 37 | 163 00 | 210 00 |
| Integrated child development services | 96 73 | 61 25 | 107 00 |
| Integrated education of the handicapped | 3 04 | 8 93 | 10 00 |
| Placement of handicapped through special employment exchanges | — | 7 02 | 5 00 |
| Women welfare (new schemes) | — | — | 10 00 |
| TOTAL | 932 46 | 936 01 | 1,286 65 |

State Social Welfare Advisory Boards

Social Welfare Advisory Boards have been set up in almost all the states and union territories. They serve as the media for exchange of information between the field and the centre and co-ordinate the welfare activities of the state governments and CSWB to avoid duplication A major portion of the financial assistance from the CSWB is extended to voluntary institutions through the state boards.

## WELFARE PROGRAMMES

The various programmes of social welfare fall broadly under six heads, namely, programmes for women, programmes for children, composite programmes for women and children, schemes for maladjusted groups, programmes for physically handicapped persons and social legislation.

### Welfare of Women

*Committee on Status of Women in India*

The Committee on Status of Women in India, set up in 1971, submitted its report to the Government of India on 1 January 1975. Follow-up action on the recommendations made by the Committee is now underway. A number of existing legislative and administrative

measures affecting women have already been reviewed. The Equal Remuneration Act was passed in 1976 which provides for (i) the payment of equal remuneration to men and women workers and (ii) prevention of discrimination on the grounds of sex against women in matters of employment and for matters connected therewith or incidental thereto Several state governments have taken action for amending the provisions relating to the eradication of dowry by imposing more rigorous penalties and by streamlining the enforcement machinery

Prohibition of Dowry

Taking and giving of dowry has been declared as violation of government servants' conduct rules for central government employees. States were advised to take similar action. Kerala, Himachal Pradesh, Tamil Nadu and Andhra Pradesh have implemented the advice. Orissa, Bihar, West Bengal, Haryana, Punjab and Himachal Pradesh had amended the dowry prohibition Act 1961 in order to make the existing law more effective. Bihar and Himachal Pradesh have made the offences under the Act cognisable

The Department has also constituted an Inter-Departmental Co-ordination Committee on Women's Welfare to ensure systematic communication, consultation and coordination among the various ministries and departments. The functions of the Committee at the state level include reviewing the progress in the implementation of various constitutional provisions and special laws intended to safeguard the interests of women, suggesting ways and means of removing defects in implementation, and bringing about coordination among various departmental programmes

The Factories (Amendment) Act, 1976 provides for establishment of a creche where 30 women are employed (including casual labourers or contract labourers) as against one for every 50 so far.

The Maternity Benefits Act, 1961 was amended in April 1976 to cover women who do not fall within the purview of the Employee's State Insurance Act, 1948

By the Marriage Laws Amendment Act, 1976, the Hindu Marriage Act, 1955 and the Special Marriage Act. 1954 have been amended to provide for the right of a girl to repudiate, before attaining majority, her marriage as a child, whether the marriage has been consummated or not Cruelty and desertion have been added as grounds for divorce and mutual consent for divorce has been recognised.

*Functional Literacy for Adult Women*

A new scheme of Functional Literacy for Adult Women in the age group between 15-45 years was started in 1975-76. The scheme offers non-formal education to cover elements of health and hygiene, food and nutrition, home management and child care, school education and vocational/occupational skills The scheme is being implemented in the Integrated Child Development Services project areas at 2561 centres About 45,000 adult women attend these literacy classes

*Condensed Courses of Education and Vocational Training for Adult women*

The scheme of Condensed Course of Education for Adult Women was started by the Central Social Welfare Board in 1958 for opening new vistas of employment to deserving and needy women and for creating a band of competent trained workers such as primary school teachers, Balsevikas, nurses, health visitors, mid-wives and family planning workers

Under the scheme, women in the age group 18-30, who have had

some schooling, are prepared for middle school, matriculation or equivalent examination within two years From 1975-76, two new components, viz one year course for failed candidates and vocational training courses, have been added to the scheme The programme has been extended to the families of Jawans killed or permanently disabled in action During 1976-77 there were 86 courses of one year duration and 91 courses of vocational training The total amount released for all these courses was Rs 55 lakhs

*Mahila Mandals*

Mahila Mandals are women's organisations running welfare programmes in rural areas The CSWB gives grants up to 75 per cent of their expenditure During 1976-77, 423 Mahila Mandals were given grants amounting to Rs 43 lakhs.

*Working Women's Hostels*

To provide accommodation at reasonable rates to working girls in urban areas, the CSWB has sponsored the setting up of working Women's hostels The Board gives grants to voluntary institutions running hostels for working women of lower and middle income groups. During 1976-77, 46 such hostels received Rs 1 65 lakhs from the Board

*Border Area Projects*

Welfare services in the border areas of the country have been strengthened with the setting up of welfare centres in the border areas of Arunachal Pradesh, Leh in Jammu and Kashmir, Lahaul and Kinnaur in Himachal Pradesh, Chamoli in Uttar Pradesh, Kutch and Banaskantha in Gujarat and Srikaranapur and Jaisalmer in Rajasthan. These centres provide maternity services, infant care, craft training and social education for women During 1976-77, 45 such projects were functioning in the country A sum of Rs 20 22 lakhs were sanctioned for these projects

Socio-economic programme

This programme of the Central Social Welfare Board, started in 1958, aims at providing needy women, destitutes and physically handicapped persons with work and wages to supplement the meagre income of their families A new component in the form of dairy scheme has been added to this programme in 1975-76 During 1976-77, Rs 60 00 lakhs were sanctioned to 297 institutions for setting up socio-economic units A provision of Rs 120 lakhs has been made for 1977-78

International Women's Year

In pursuance of United Nations General Assembly Resolution, the Government of India decided to join other countries of the world in observing 1975 as the International Women's Year and constituted a National Committee which finalised the programme for the year. The highlights of this programme were issue of a commemorative postage stamp, observance of All India Women's Day, distribution of educative material among educational institutions and Panchayati Raj institutions, holding exhibitions, sports festivals, production of documentary films, organising essay competitions, seminars and conventions

The Department is bringing out monthly newsletters from March 1975 high-lighting the programmes of celebrations undertaken at the central, state and voluntary level and news from other countries. The Department has also brought out a compendium of programmes of women entitled 'Women in India'.

## Programmes for Children

### *Nutrition Programmes*

To meet the widespread nutritional deficiency among children, especially those belonging to the lower economic strata, the Government of India introduced the Special Nutrition Programme in 1970-71 to provide supplementary nutrition to children of 0-3 years of age in the tribal areas and urban slums (in towns with more than one lakh population). The programme was extended in 1972-73 to cover children up to 6 years of age as well as expectant and nursing mothers About 38 lakh beneficiaries, including over 3 lakh expectant and nursing mothers in 28,119 feeding centres in urban and slums tribal areas were provided supplementary nutrition under the programme by the end of the Fourth Plan The programme is functioning in all the states and union territories.

In addition to the Special Nutrition Programme, the Department of Social Welfare started another programme in 1970-71 through Balwadis run by voluntary institutions, under which children between 3 and 6 years were provided supplementary nutrition. By the end of the Fourth Plan, about 2 25 lakh children were covered under this programme in over 6,000 *balwadis*.

Both these programmes were operated in the central sector during the Fourth Five Year Plan The Special Nutrition Programme was implemented through the state governments and union territories and the Balwadis Nutrition Programme through the Central Social Welfare Board, the Indian Council for Child Welfare, the Bharatiya Adimjati Sevak Sangh and the Harijan Sevak Sangh. In the Fifth Plan, the programme of supplementary feedng of pre-school children and expectant and nursing mothers has been included in the state sector as a part of the Minimum Needs Programme with a Plan outlay of Rs 88.18 crores

### *Integrated Child Development Services*

In the Fifth Plan highest priority has been accorded to child welfare programmes The most important scheme in this field is the integrated child development services for children in the age group of 0-6 years, nursing and expectant mothers etc. Under the scheme a package of services consisting of supplementary nutrition feeding, immunisation, health check-up, referral services, nutrition and health education and information and pre-school education is delivered.

A child Development Project Officer is directly in-charge of each ICDS project. The focal point for delivery of services is an *anganwadi*. The work of *anganwadi* workers is supervised by *mukhyasevikas* The scheme places great reliance in involvement of voluntary agencies and community participation in implementation through the coordination of efforts of different government departments and voluntary agencies at all levels As ICDS is a major experiment of an integrated strategy for early childhood services, great emphasis has been laid on the training of workers at different levels

Thirty-three projects under this scheme have been started. Of these, 18 are in rural areas, 11 in tribal areas and 4 in metropolitan areas.

### *Other Services for Children*

Providing care and protection to abandoned, neglected, unwanted and destitute children is another important programme implemented by the Department of Social Welfare. The need for such a programme has arisen as a result of the break-up of the old family system which provided care and shelter to dependent children Under the scheme, started in 1974-75, assistance is provided to voluntary organisations

through the state government for residential care as well as foster care of destitute children. During 1974-75, assistance of Rs 76 lakhs was given for the benefit of 9,665 children in need of care and protection During 1976-77, the assistance was increased to Rs 1.63 crores for providing service to 19,810 children. During 1977-78, assistance of Rs 99 lakhs has been given (till September 1977). The scheme for running creches for the children of working and ailing women has been continued with increased grants.

The Department of Social Welfare also gives assistance to voluntary organisations for organising creches for babies (0-3 years). During 1976-77, an amount of Rs 25 lakhs was sanctioned for this scheme benefiting 19,050 babies. In 1975-76, an amount of Rs. 28.36 lakhs was sanctioned to 41 voluntary organisations for establishing 508 creches for about 12,700 children

*Holiday Camps*

The scheme of Holiday Camps for Children was started in 1958. The CSWB extends financial assistance to voluntary institutions for organising such camps for children belonging to low income group families. In 1976-77, grants totalling Rs 6.42 lakhs were given for organising 281 camps

*Foster Care Homes*

To provide care for children affected by desertion, divorce, long illness or imprisonment or death of either parent, three Foster Care Homes, one in Madras and two in Bombay, are being run by voluntary institutions During 1976-77, Rs 85,000 were sanctioned by CSWB to these institutions.

*Training Programmes*

The Centre has sponsored a number of training programmes for field level functionaries. *Balsevika* training programme was started during 1961-62 to train child welfare workers At present there are 27 such centres imparting eleven months training in pre-school education, recreation. health, nutrition and social work By the end of 1974, 6,576 workers had been trained by these centres In addition, six Family and Child Welfare Training Centres were established during the Third and Fourth Plan periods to train the field staff of family and child welfare projects. Grants are also being given by the centre to the Grameen Mahila Sangh for organising short duration training camps for field workers in the development of leadership and in improved agriculture Twelve such camps were organised in 1975-76 To meet the growing needs for social workers, particularly in the voluntary sector, the National Institute of Public Cooperation and Child Development and the National Institute of Social Defence also organise short duration courses and workshops for non-officials

*National Policy For Children*

In August 1974, the Government of India adopted a national policy resolution for children The resolution spells out the various measures to be adopted and the priorities to be assigned in children's programmes In accordance with the resolution a National Children's Board was set up in December 1974 with Prime Minister as its president Similar boards are also being constituted in different states.

Maladjusted Groups

*Social Defence Programmes*

In order to curb various forms of personal and social misorganisations, government has taken up special programmes for maladjusted groups and individuals These programmes known as Social Defence Programmes are organised mainly within the frame-

work of specific legislations and allied measures. These measures include preventive, correctional and rehabilitative services in various areas of social defence such as welfare of prisoners, delinquency control, probation, beggary control and social and moral hygiene.

*Welfare of Prisoners*

Under the scheme, welfare officers look after the individual problems of prisoners and assist in solving them in liaison with their families. Creches are established in some prisons for the children of women prisoners.

*Juvenile Delinquency*

Juvenile delinquency is a state subject Children's Acts of various states provide for necessary machinery such as juvenile courts, Child Welfare Boards, Remand/Observation Homes, Special/Certified/Approved Schools for prevention and treatment of juvenile delinquency The Central Children's Act 1960 is applicable to all the union territories. It has also been adopted by most of the States

*Probation Services*

The Probation of Offenders Act 1958 contains a mandatory provision for calling upon the courts to consider a Social Investigation Report from the Probation Officers in respect of youthful offenders under 21 years of age. It also provides for the release of offenders below the age of 21 years on probation It is a central legislation which has been adopted by most of the states. There are also some voluntary organisations that grant financial and other assistance to those released on probation such as hostel accommodation and employment assistance.

*Beggary Prevention*

Many states have passed anti-beggary legislation In others, Municipal and Police Acts provide for measures against begging The Government of India is preparing a model legislation for union territories

*Social and moral Hygiene*

Indian Constitution prohibits traffic in human beings The Government of India passed in 1956 Suppression of Immoral Traffic in Women and Girls Act It is a Central legislation applicable to the whole of the country and empowers the state governments to make rules for its smooth application Under the Act women and girls rescued from brothels are sent to protective of corrective homes Various states and union territories have set up protective homes, reception centres, short-stay homes and district shelters for women and girls facing moral danger.

*National Institute of Social Defence*

The Central Bureau of Correctional Services, established in 1961, was reconstituted and renamed on 1 January 1975 as the National Institute of Social Defence The Institute has been assigned technical functions with regard to the coordination, standardisation and development of social defence programmes in various areas including those relating to the prevention of alcoholism, gambling, suicide and drug addiction

To achieve its goals, the Institute undertakes research, collects statistics, promotes training, drafts model legislations and rules, creates public awareness on social defence problems and establishes liaison with universities and concerned agencies It also advises central and state governments on various aspects of social defence development. The Institute brings out professional publications including its quarterly journal, 'Social Defence.'

**Welfare of Physically Handicapped**

Programmes are being implemented for the education training and rehabilitation of four categories of handicapped persons, namely, the blind, the deaf, the orthopaedically handicapped and the mentally retarded Three per cent of group 'C' and 'D' posts are reserved in central services and public sector undertakings for the physically handicapped From 2 October 1977, central government allowed holders of motorised vehicles on which the tax has been exempted by the state governments concerned, a concession of 50 per cent in the cost of petrol/diesel used by them subject to certain stipulated ceilings

*Blind*

There are 140 schools and training centres for the blind in the country. The National Centre for the Blind, Dehra Dun, provides integrated services The model school for blind children attached to the Centre is a secondary school The Centre also has a training centre for the adult blind, a school for partially sighted children, a workshop for the manufacture of Braille appliances, a sheltered workshop and the central Braille press The national library for the blind, which also forms part of the Centre, circulates Braille literature in the country The four teachers' training centres at Delhi, Bombay, Calcutta and Madras train 40 to 50 teachers for the blind annually.

*Deaf*

The National Centre for the Deaf at Hyderabad has a Training Centre for the Adult Deaf and a School for Partially Deaf Children, the only one of its kind in the country The Training Centre imparts training in tailoring sheet metal work, electrical wiremanship, carpentry, fitting and gas welding

*Orthopaedically Handicapped*

A National Institute for the Orthopaedically Handicapped is being set up in Calcutta The Institute will concentrate on research and training of personnel for the rehabilitation of the orthopaedics

*Mentally Retarded*

A model school for metally deficient children is functioning in Delhi for children in the age group 6-15. The school also provides training in a few crafts

*Integrated Education*

The National policy resolution on education suggests that as far as possible handicapped children should be placed in ordinary schools. For this, a scheme has been drawn up and forwarded to various state governments At present seven states and one union territory are implementing the scheme

*Other Services*

Assistance is given to voluntary organisations serving the handicapped and to cured leprosy patients. The extent of assistance set at 75 per cent has recently been raised to 90 per cent of the estimated expenditure on approved items In 1975-76, Rs 65 lakhs were given to 90 organisations There are now 17 special employment exchanges in the country for the physically handicapped by the end of 1976-77 They have placed about 15,500 persons in employment.

*Scholarships*

The Department of Social Welfare awards scholarships to the blind, deaf and orthopaedically handicapped students for general education and for technical and professional training About 7,000 scholarships are awarded annually The implementation of the scheme was decentralised from 1 April 1977 in five states and one union territory

*National Awards* National awards are given every year to outstanding employers of the handicapped and the most efficient handicapped employees. Seven efficient physically handicapped employees and six outstanding employers were given awards in 1977.

PROHIBITION

The Constitution (article 47) enjoins on the State to endeavour to bring about prohibition of the consumption of intoxicating drinks and drugs. In December 1954, the Prohibition Enquiry Committee was appointed to suggest a programme and machinery for the implementation of the directive. On the recommendations of the Committee, the Centre has drawn up a minimum programme for implementing the prohibition policy. The programme includes measures such as stoppage of drinking in public places, hotels, hostels, restaurants, clubs and at receptions, discontinuance of advertisements and public inducements for drinking; banning of liquor shops near industrial, irrigation and other development projects; banning of liquor shops along highways, residential areas, educational institutions, and religious places in labour colonies and declaring of pay days in different areas as 'dry days'. Grants are given to voluntary organisations for educating people on the evil effects of drinking. A Committee to inquire into the extent of drug addiction in the country has been constituted and eight research studies have been sponsored by the Centre on this problem A meeting of the Central Prohibition Committee held on 30 July 1977 in New Delhi resolved that total prohibition should be achieved throughout the country within next four years.

RESEARCH AND EVALUATION

The Department of Social Welfare has set up a planning Research, Evaluation and Monitoring Division for planning and project formulation, sponsoring of research studies and research publications, documentation, compilation and processing of statistical data.

A scheme for sponsoring research studies in the field of social welfare was started in 1973 So far 83 research projects have been sanctioned to universities research institutes for studying the nature and magnitude of social welfare problems. So far, (upto September 77) an amount of Rs 32.90 lakhs was spent since inception of the scheme

## SCHEDULED AND BACKWARD CLASSES

The scheduled castes and scheduled tribes have been specified by thirteen Presidential Orders issued under the provisions of Articles 341 and 342 of the Constitution. According to the 1971 Census, about 22 per cent of the country's population comprised of the scheduled castes and the scheduled tribes. In addition. some state governments have also specified other categories of people known as the "other backward classes" and the denotified, nomadic and semi-nomadic communities No precise figure of the population of these categories is available

While the Constitution has prescribed certain protective measures and safeguards for these classes, the successive Five Year Plans have regarded their progress as a major objective of national policy

CONSTITUTIONAL SAFEGUARDS

The Constitution prescribes protection and safeguards for the scheduled castes and tribes, and other backward classes either specially or by way of insisting on their general rights as citizens with the object of

promoting their educational and economic interests and of removing the social disabilities which the scheduled castes were subjected to. The main safeguards are :

(i) the abolition of 'untouchability' and the forbidding of its practice in any form (art. 17);

(ii) the promotion of their educational and economic interests and their protection from social injustice and all forms of exploitation (art. 46);

(iii) the throwing open by law of Hindu religious institutions of a public character to all classes and sections of Hindus (art 25);

(iv) the removal of any disability, liability, restriction or condition with regard to access to shops, public restaurants, hotels and places of public entertainment or the use of wells, tanks, bathing ghats, roads, and places of public resort maintained wholly or partly out of State funds or dedicated to the use of the general public (art. 15);

(v) the curtailment by law, in the interests of any scheduled tribe, of the general rights of all citizens to move freely, settle in, and acquire property [art 19(5)];

(vi) the forbidding or any denial of admission to educational institutions maintained by the State or receiving aid out of State funds (art 29);

(vii) permitting the State to make reservation for the backward classes in public services in case of inadequate representation and requiring the State to consider the claims of the scheduled castes and tribes in the making of appointments to public services (art. 16 and 335);

(viii) special representation in the Lok Sabha and the state vidhan sabhas to scheduled castes and tribes till 25 January 1980 (arts 330, 332 and 334);

(ix) the setting up of Tribes Advisory Councils and separate departments in the states and the appointment of a special officer at the centre to promote their welfare and safeguard their interests (arts 164 and 338 and Fifth Schedule);

(x) special provision for the administration and control of scheduled and tribal areas (art 244 and Fifth and Sixth Schedules); and

(xi) prohibition of traffic in human beings and forced labour (art 23).

**LEGISLATION AGAINST UNTOUCHABILITY**

The Untouchability (Offences) Act, 1955 provides penalties for preventing a person, on the ground of untouchability, from entering a place of public worship and offering prayers or taking water from a sacred tank, well or spring Penalties are also provided for enforcing any kind of social disability such as denying access to any shop, restaurant, public hospital or educational institution, hotel or any place of public entertainment, or denying the use of any road, river, well, tank, water tap, bathing ghat, cremation ground, sanitary convenience, dharamshala, sarai or musafirkhana or utensils kept in such institutions and hotels and restaurants The Act prescribes penalties for enforcing occupational, professional or trade disabilities, or disabilities in the matter of enjoyment of any benefit under a charitable trust. in the construction or occupation of any residential premises in any locality or in the observance of any social or religious usage or ceremony.

The Act also lays down penalties for refusal to sell goods or render services to a person on the ground of untouchability, for molesting, injuring or annoying a person, or organising a boycott of, or taking any part in the ex-communication of a person who has exercised the rights accruing to him as a result of the abolition of untouchability.

Higher penalties have been prescribed for subsequent offences. For purposes of awarding punishment, incitement or abetment of the offence has been treated in the same manner as the commission of the offence. The offence under this Act are cognisable and the onus of proving innocence is on the accused.

For enlarging the scope and making the penal provision more stringent, the Untouchability (Offences) Act 1955 has been amended The amended act now known as the Protection of Civil Rights Act aims at plugging the loopholes of the Principal Act. It came into force with effect from 19 November 1976.

Untouchability offences are cognizable and non-compoundable. There is a provision for minimum punishment of both imprisonment and fine Offences with a minimum term of three month's imprisonment are triable summarily. A public servant who wilfully neglects the investigation of any offence, is deemed to have abetted an offence punishable under the Act. The states have been empowered to impose collective fines on the inhabitants of any area where such people are involved or abetting commission of untouchability offences. The Representation of the People Act 1951. has also been amended to provide that the persons convicted of any offence under the protection of Civil Rights Act, 1955 would be disqualified from contesting elections to the parliament and the state legislatures.

The Act is administered by state governments but its implementation is reviewed from time to time by the central government also.

POPULATION

According to the 1971 census, the population of the scheduled castes and scheduled tribes was 80,005,398 and 3,80.15,162 respectively Table 9.3 shows their state-wise distribution

REPRESENTATION IN LEGISLATURES

Under articles 330 and 332 of the Constitution, seats are reserved for the scheduled castes and scheduled tribes in the Lok Sabha and state vidhan sabhas in proportion to their population. This concession was initially for a period of 10 years from the commencement of the Constitution but has been extended. through amendments, up to 25 January 1980 Parliamentary Acts provide for such reservations in the union territories having legislatures Table 9.4 gives details of their representation in the Lok Sabha and vidhan sabhas There is no reservation of seats in the Rajya Sabha and state vidhan parishads

Following the introduction of Panchayati Raj, safeguards have been provided for proper representation of the members of the scheduled castes and tribes by reserving seats for them in the Gram Panchayats and other local bodies.

RESERVATION IN THE SERVICES

The manner in which the State carries out its obligation to reserve posts for the scheduled castes and tribes in the public services in case of inadequate representation and to consider their claims consistent with the maintenance of efficiency of administration has been left outside the purview of obligatory consultation with the Public Service Commission [art 320 (4)].

For the scheduled castes, reservation is 15 per cent of the vacancies

for which recruitment is made by open competition on an all-India basis and 16⅔ per cent of the vacancies to which recruitment is made otherwise For the scheduled tribes, the reservation is 7½ per cent in both cases Reservations in direct recruitment to Group 'C' and 'D' posts which normally attract candidates from a locality or region, are fixed in proportion to the population of the scheduled castes and tribes in the respective states and union territories.

TABLE 9 3
POPULATION OF SCHEDULED CASTES AND TRIBES (1971 CENSUS)

| | Scheduled castes | Scheduled tribes |
|---|---|---|
| INDIA | 80,005,398 | 3,80,15,16 |
| *States* | | |
| Andhra Pradesh | 57,74,548 | 16,57,657 |
| Assam | 9,12,557 | 16,06,648 |
| Bihar | 79,50,652 | 49,32,767 |
| Gujarat | 18,25,432 | 37,34,422 |
| Haryana | 18,95,933 | — |
| Himachal Pradesh | 7,69,572 | 1,41,610 |
| Jammu & Kashmir | 3,81,277 | — |
| Karnataka | 38,50,034 | 2,31,268 |
| Kerala | 17,72,168 | 2,69,356 |
| Madhya Pradesh | 54,53,690 | 83,87,403 |
| Maharashtra | 30,25,761 | 29,54,249 |
| Manipur | 16,376 | 3,34,466 |
| Meghalaya | 3,887 | 8,14,230 |
| Nagaland | — | 4,57,602 |
| Orissa | 33,10,854 | 50,71,937 |
| Punjab | 33,48,217 | — |
| Rajasthan | 40,75,580 | 31,25,506 |
| Sikkim | 9,502 | — |
| Tamil Nadu | 73,15,595 | 3,11,515 |
| Tripura | 1,92 860 | 4,50,544 |
| Uttar Pradesh | 1,85,48,916 | 1,98,565 |
| West Bengal | 88,16,028 | 25,32,969 |
| *Union Territories* | | |
| Andaman & Nicobar Islands | — | 18,102 |
| Arunachal Pradesh | 339 | 3,69,408 |
| Chandigarh | 29,073 | — |
| Dadra & Nagar Haveli | 1,332 | 64,445 |
| Delhi | 6,35 698 | — |
| Goa, Daman & Diu | 16,514 | 7,654 |
| Lakshadweep | — | 29,540 |
| Mizoram | 82 | 3,13,299 |
| Pondicherry | 72,921 | — |

Reservation is also made at 15 per cent of the vacancies for the scheduled castes and 7½ per cent for the scheduled tribes in promotions on the results of the competitive examinations limited to departmental candidates in Groups B, C and D and in promotions by selection in Groups B, C and D and to the lowest rung of Group A in grades or services to which direct recruitment, if any, does not exceed 66⅔ per cent. Reservation has also been provided for scheduled castes and scheduled tribes in promotion on the basis of seniority subject to fitness in groups A, B, C and D posts in grades or services to which direct recruitment, if any, does not exceed 66 per cent

In promotions by selection within group 'A' to posts carrying an ultimate salary of Rs 2 250 pm. or less, the scheduled castes and tribes officers, who are senior enough in the zone of consideration for pro-

motion and are within the number of vacancies for which the select list has to be drawn, are included in that list provided they are not considered unfit for promotion.

TABLE 9.4
ALLOTMENT OF SEATS IN LEGISLATURES

| State/Union Territory | Lok Sabha | | | Vidhan Sabha | | |
|---|---|---|---|---|---|---|
| | Total number of seats | Seats reserved for scheduled castes | Seats reserved for scheduled tribes | Total number of seats | Seats reserved for scheduled castes | Seats reserved for scheduled tribes |
| *States* | | | | | | |
| Andhra Pradesh | 42 | 6 | 2 | 294 | 39 | 11 |
| Assam | 14 | 1 | 2 | 126 | 8 | 16[1] |
| Bihar | 54 | 8 | 5 | 324 | 46 | 28 |
| Gujarat | 26 | 2 | 4 | 182 | 12 | 25 |
| Haryana | 10 | 2 | — | 90 | 17 | — |
| Himachal Pradesh | 4 | 1 | — | 68 | 15 | 3 |
| Jammu & Kashmir | 6 | — | — | 76[2] | 6 | — |
| Karnataka | 28 | 4 | — | 224 | 29 | 2 |
| Kerala | 20 | 2 | — | 140 | 12 | 2 |
| Madhya Pradesh | 40 | 5 | 8 | 320 | 42 | 64 |
| Maharashtra | 48 | 3 | 3 | 288 | 17 | 17 |
| Manipur | 2 | — | 1 | 60 | 1 | 19 |
| Meghalaya[3] | 2 | — | — | 60 | — | — |
| Nagaland[3] | 1 | — | — | 60 | — | — |
| Orissa | 21 | 3 | 5 | 147 | 22 | 34 |
| Rajasthan | 25 | 4 | 3 | 200 | 32 | 24 |
| Sikkim | 1 | — | — | 32 | 1 | — |
| Punjab | 13 | 3 | — | 117 | 29 | — |
| Tamil Nadu | 39 | 7 | — | 234 | 42 | 2 |
| Tripura | 2 | — | 1 | 60 | 7 | 17 |
| Uttar Pradesh | 85 | 18 | — | 425 | 89 | 1 |
| West Bengal | 42 | 8 | 2 | 294 | 59 | 17 |
| *Union Territories* | | | | | | |
| Andaman & Nicobar Islands | 1 | — | — | — | — | — |
| Arunachal Pradesh[3] | 2 | — | — | 30 | — | — |
| Chandigarh | 1 | — | — | — | — | — |
| Dadra & Nagar Haveli | 1 | — | 1 | — | — | — |
| Delhi | 7 | 1 | — | 56[4] | 9 | — |
| Goa, Daman & Diu | 2 | — | — | 30 | 1 | — |
| Lakshadweep | 1 | — | 1 | — | — | — |
| Mizoram[3] | 1 | — | — | 30 | — | — |
| Pondicherry | 1 | — | — | 30 | 5 | — |
| TOTAL | 542 | 78 | 38 | 3,997 | 540 | 282 |

[1]Four seats are reserved for two autonomous districts (North Cachar Hills and Mikir Hills)

[2]Excluding 24 seats in the territory held by Pakistan

[3]No reservation has been made

[4]Metropolitan Council

To facilitate their adequate representation, concessions such as, (i) relaxation in age limit, (ii) relaxation in the standard of suitability, (iii) selection, provided they are not found unfit for the posts, (iv) relaxation of the qualification regarding 'experience' in the case of candidates of the scheduled castes and scheduled tribes, wherever

necessary and (v) inclusion of scientific and technical posts up to the lowest grade of group A required for research, in the scheme of reservations, have been provided for Simultaneously with notification to employment exchanges or advertisement in newspapers, vacancies reserved for scheduled castes and scheduled tribes in groups C and D (Class III and IV) posts are announced over the stations of All India Radio located in areas having concentration of scheduled caste and scheduled tribe population. Vacancies filled through the union public service commission otherwise than through examination, are advertised on the first occasion as exclusively reserved for scheduled castes/ scheduled tribes and are advertised a second time, if necessary, when other community candidates are also considered, if no scheduled caste/ tribe candidates still become available. In no recruitment year, however, the number of reserved vacancies is to exceed 50 per cent of the total vacancies. The scheme of reservations is also being followed by the public sector undertakings The voluntary agencies which are in receipt of substantial grants-in-aid from the government, are also required, as a condition, to adopt the certain specific features of the reservation scheme in their establishments.

To give effect to the reservations, model rosters of 40 points each have been prescribed for recruitment by open competition and otherwise on an all-India basis. If the vacancies in a service or cadre are too few for the purpose, all corresponding posts are grouped together. Annual statements are required to be submitted by the recruiting authorities for scrutiny by the government For ensuring implementation of the special representation orders, liaison officers have been appointed in different ministries of the union government.

State governments have also framed rules for the reservation of posts for these classes and taken steps to increase their representation in the state services

25 per cent of the vacancies in the peons cadre have been reserved for being filled in by transfer from sweepers, farashes, chowkidars, etc. who have put in a minimum of five years service and who may not be possessing the qualifications prescribed for direct recruitment to the post but who may possess elementary literacy and give proof of ability to read either English or Hindi or regional language.

The number of officers under the central government belonging to the scheduled castes and scheduled tribes in various grades as on 1 January 1976, was group A-1,540; group B-3.358; group C-2, 28, 124; group D (Excluding sweepers) 2,79.055 Their number in IAS and IPS on 1 January 1976 was 409 and 199 respectively.

**ADMINISTRATION OF SCHEDULED AND TRIBAL AREAS**

Some areas have been 'scheduled' in the States of Andhra Pradesh, Bihar, Gujarat, Madhya Pradesh, Maharashtra, Orissa and Rajasthan under article 244 and the Fifth Scheduled to the Constitution. Governors of the respective states submit a report annually to the President on the administration of the 'scheduled' areas in their states

The tribal areas in the States of Assam and Meghalaya and the Union Territory of Mizoram are administered subject to the provisions of the Sixth Schedule to the Constitution Under the Schedule, they are divided into autonomous districts. There are eight such districts, namely, North Cachar Hills and Mikir Hills districts in Assam, United Khasi-Jaintia Hills, Jowai and Garo Hills districts in Meghalaya and Chakma, Lakher and Pawi districts in Mizoram. Each

autonomous district has a district council consisting of not more than 30 members of whom not more than four can be nominated and the rest are to be elected on the basis of adult suffrage. The councils are vested with certain administrative, legislative and judicial powers

WELFARE AND ADVISORY AGENCIES

A special officer designated as the Commissioner for Scheduled Castes and Scheduled Tribes investigates all matters relating to the safeguards for them provided under the Constitution and reports to the President on the working of the safeguards

The union Ministry of Home Affairs is responsible for the formulation and implementation of schemes for the welfare of the scheduled castes and scheduled tribes and other backward classes and maintains liaison with the states

Parliamentary Committees

The Government of India set up three Parliamentary Committees, the first in 1968, the second in 1971 and the third in 1973, to examine the implementation of the Constitutional safeguards for the welfare of the scheduled castes and scheduled tribes The Committee has since been constituted as a standing committee of Parliament, the tenure of the members being one year. This Committee consists of thirty members twenty from the Lok Sabha and ten from Rajya Sabha

Welfare Departments in States

The state governments and union territory administrations have separate departments to look after the welfare of the scheduled castes and scheduled tribes and other backward classes. The administrative set-up varies from state to state In Bihar, Madhya Pradesh and Orissa, separate ministers have been appointed to look after tribal welfare as prescribed in article 164 of the Constitution Some other states have set up committees of members of state legislatures on the pattern of the Parliamentary Committee at the centre

Voluntary Organisations

A number of voluntary organisations also promote the welfare of the scheduled castes Important organisations of all-India character are : Harijan Sewak Sangh, Delhi . Bharatiya Depressed Class League, New Delhi, Iswar Saran Ashram, Allahabad; Indian Red Cross Society, New Delhi, Hind Sweepers Sewak Sangh, New Delhi and Ramakrishna Mission, Narendrapur. West Bengal Bhartiya Adimjati Sewak Sangh. New Delhi, Andhra Rashtra Adimajati Sewak Sangh, Nellore, Ramakrishna Mission, Cherrapunji, Ranchi, Puri, Silchar and Shillong; Thakkar Bapa Ashram, Nimakhandi, (Orissa) and the Servants of India Society. Pune

The Servants of India Society, Pune, look after the interests of the backward classes

The Government of India provides grants to national voluntary organisations against specific schemes for the welfare of backward classes During 1977-78 a provision of Rs 70 00 lakhs has been earmarked for these organisations

WELFARE SCHEMES

Expenditure during the Plans

The welfare of scheduled castes and scheduled tribes is given special attention by both the central and state governments Special programmes for their welfare have been undertaken in the successive Five Year plans and the size of investment on these special programmes has been increaseing from Plan as shown in table 9 5.

TABLE 9 5
EXPENDITURE DURING THE PLANS

(Rs Crores)

| Plan | Period | Expenditure |
|---|---|---|
| First | 1951-56 | 30 04 |
| Second | 1956-61 | 79 41 |
| Third | 1961-66 | 100 40 |
| Annual Plans | 1966-69 | 68 50 |
| Fourth | 1969-74 | 172 70 (anticipated) |
| Fifth Plan (outlay) | 1974-79 | 288 88 |
| Special central assistance for sub-plans for tribal areas | | 200 00 |

In addition, state governments have also been spending a sizable amount from their non-Plan budgets on the welfare of these classes

New Strategy

In the Fifth Plan, a new strategy has been adopted for the uplift of the scheduled castes and scheduled tribes Greater emphasis will be placed on the role of the general sector for providing a major thrust to the development of backward classes Programmes in the backward classes sector will be of a catalytic nature and will be supplemental to the general sector programmes

The scheduled castes will be largely benefited by the Minimum Needs Programme In this programme, priority will be given to the scheduled castes and scheduled tribes and for this purpose general norms will be relaxed for meeting the special requirements of the backward classes and tribal areas

With regard to the scheduled tribes it has been decided that all those areas which have more than fifty per cent tribal population should be clearly identified and sub-plans should be prepared for these areas The sub-plan represents the total effort of the region of the central ministries, the state governments and other institutions including financial bodies Realising that this may not be adequate the union government has also set aside an amount of rupees two hundred crores as special assistance for the states tribal development effort in the sub-plan areas In the first year of the Fifth Plan, advance action was initiated in forty five project areas of the sub-plan by preparing Integrated Tribal Development Projects The Integrated Project programme is expected to cover practically the entire sub-plan areas in the year 1976-77 In the new set up there will not be any separate identity for the TD Block programmes and this programmes as such has come to an end in 1974-75 except in special cases

Plan Programmes

The Plan programmes for the welfare of backward classes fall into three main groups: centrally-operated, centrally-sponsored and state sector Important schemes being implemented under these categories are briefly described below

Central Schemes
*Training and Coaching Centres*

With a view to helping the scheduled castes and scheduled tribes to secure employment, two schemes, namely, pre-examination training centres and coaching-*cum*-guidance centres, have been started Under the first scheme, there are six centres located at Allahabad, Delhi (through a private coaching centre), Jaipur, Madras, Patiala and Shillong which impart coaching to scheduled castes and scheduled tribes for all-India services examinations conducted by the Union Public Service Commission Centres for imparting training to candidates for state services examinations have also been set up in the States

of Andhra Pradesh, Bihar, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Orissa, Uttar Pradesh, West Bengal and Union Territory of Delhi. Two centres for imparting coaching for engineering service examinations have also been set up at Allahabad and Tiruchirapalli

Four coaching-*cum*-guidance centres, one each at the employment exchanges in Delhi, Kanpur, Jabalpur and Madras have been set up to conduct courses of 'confidence building and interview techniques' for the scheduled caste and scheduled tribe applicants on the live registers of the concerned employment exchanges

*Post-Matric Scholarships*

While the size of every other scheme has to depend on the constraint of budget, in the case of post-matric scholarships it is the number of eligible students that determines the total expenditure. The rates of maintenance allowance admissible under the scheme have been appreciably enhanced with effect from the academic year 1974-75. The scheme has also been rationalised.

*Girls Hostels for the Scheduled Castes and Tribes*

Under the scheme, financial assistance is given to state and union territory governments for the construction of new hostels and to expand existing ones at any place where the facilities for girls belonging to these classes are inadequate. A sum of Rs. 1.96 crores was spent on the scheme during the Fourth Plan An amount of Rs. 3.77 crores has been allocated during the Fifth Plan.

*Assistance to Co-operatives*

As the co-operative movement has a vital role in the elimination of the exploiters of the weaker sections, especially in the tribal areas, a net-work of co-operative societies—forest labour, multi-purpose labour contract and construction, and marketing societies and apex co-operative organisations—has been organised with government assistance.

*Tribal Research Institutes*

There are at present 11 Tribal Research Institutes in the country. To co-ordinate their activities a 30-member Central Research Advisory Council has been set up The Council provides guidance on policy formulation and serves as a clearing house for the Institutes, central and state governments and other research organisations connected with tribal problems

*Overseas Scholarships*

Scholarships to deserving scheduled caste and scheduled tribe students for studies in foreign countries are being awarded by the union government since 1955. The number of such scholarships every year is 10 for scheduled castes, six for scheduled tribes, one for denotified nomadic and semi-nomadic tribes and three for other backward classes and one neo-Buddhist Tourist class air passage is provided to students who receive foreign scholarships from other sources without travel grants

State Sector Schemes

The state sector programme for which central assistance is given in the shape of block grants and loans can be divided into three main groups, namely, education, economic uplift and health, housing and other schemes The particulars of the schemes are :

*Education*

(i) Pre-matric scholarships and stipends
(ii) Exemption from tuition and examination fees

(iii) Provision of educational equipments
(iv) Provision of mid-day meals
(v) Setting up of Ashram schools (basic type residential schools)
(vi) Grants for the construction of school and hostel buildings

*Economic Development*

(i) Provision of land and irrigation
(ii) Supply of bullocks, agricultural implements, seeds and manure
(iii) Development of cottage industries
(iv) Development of communications
(v) Co-operation
(vi) Colonisation of shifting cultivators
(vii) Supply of poultry, sheep, pigs and goats

*Health, Housing and Other Schemes*

(i) Medical facilities
(ii) Drinking water supply
(iii) Provision of houses and house-sites
(iv) Provision of legal aid
(v) Grants to non-official agencies working at state level.

## RELIEF AND REHABILITATION

Relief and resettlement in the Western Border areas—D Ps. from Chhamb

Out of about 3,800 families of displaced persons from Chhamb, over 2,900 families had moved to the resettlement sites up to August, 1977 in Jammu Division and only one of three relief camps remains which accommodates 951 families and these too are expected to be settled by the end of 1978.

Resettlement of migrants from former East Pakistan—Dandakaranya Project

The resettlement operations of the Dandakaranya project in Koraput district (Orissa) and in Bastar district (Madhya Pradesh) continued. By July, 1977, 158,977 acres of land had been reclaimed. 21,356 families of displaced persons from present Bangladesh and 3,596 families of tribals have been settled in the area so far.

The Potteru Irrigation-*cum*-resettlement Scheme sanctioned in 1975 provides irrigation facilities in 1,50,000 acres, settlement of 11,000 families of displaced persons and 2,000 families of tribals.

Repatriates from Sri Lanka

Under the Indo-Ceylon Agreement of 1964 and 1974, six lakh persons of Indian origin, together with their natural increase, are to be repatriated to India over a period of 17 years. About 2.67 lakh persons have been repatriated till August 1977 The repatriates are being provided employment in plantations/industries etc. or granted financial assistance for agricultural and non-agricultural occupations

Prime Minister's National Relief Fund

The Prime Minister's National Relief Fund was started in 1947. Up to the end of September 1977 public contribution to the fund amounted to about Rs 20 86 crores Over Rs 8 90 crores were utilised in providing relief to people affected by natural calamities such as earthquakes, floods, cyclones, droughts, famines and fire Relief was also given in the early stages to displaced persons from Pakistan.

# MASS COMMUNICATION

The term mass communication stands for dissemination of information, ideas and entertainment by the use of communication media. The media include those which use modern means of communication such as the radio, the film, the television, the press, publications and advertising In fact they co-exist with important traditional media such as folk dance, drama and puppetry. In India, the Ministry of Information and Broadcasting has a huge set-up of mass communication, with the regional and branch offices as well as mobile units, spread all over the country.

## RADIO

Radio broadcasts started in India in 1927 with two privately-owned transmitters at Bombay and Calcutta The Government of India took them over in 1930 and the Posts and Telegraphs Department started operating them under the name of Indian Broadcasting Service In 1936. the name of the Service was changed to All India Radio, known as 'Akashwani' since 1957 and it was made a separate department AIR is now the biggest media organisation of the Ministry of Information and Broadcasting and its programmes are received by 1 74 crore radio receiver sets[1] in India Broadcasting is wholly a state-owned system in India It is serving as an effective medium not only to inform and educate people but also to provide healthy entertainment It is also helping to create a climate of opinion in which social change can take place and people could be involved in the process.

Broadcasting Network and Programme Composition

All India Radio's network consisted of six radio stations at the time of Independence in 1947 Now there are 82 stations[2] including two Vividh Bharati/commercial centres, one at Chandigarh and the other at Kanpur In addition, there are two auxiliary studio centres at Bhubaneshwar and Shantiniketan These cover all the important cultural and linguistic regions of the country AIR's 'home service' programmes are transmitted for 3 17 lakh hours every year (more than 868 hours per day), excluding 1 43 lakh hours of Vividh Bharati programmes. The programmes which are beamed from 155 transmitters, of which 122 are medium wave cover 76.2 per cent of the geographical area and 87 75 per cent of the population of the country In addition, there are also 'external service' transmissions, which present programmes in 17 foreign languages and eight Indian languages for about 53 hours daily to project India's viewpoint on important issues to listeners abroad and project the cultural heritage of the

[1]For circle-wise and receiver-type break-up see table 10 1

[2]The 82 radio stations as on 30 September 1977 grouped into five zones, are the following · *North zone*. Ajmer, Allahabad, Bikaner, Chandigarh, Delhi Gorakhpur, Jaipur, Jodhpur, Jullundur, Kanpur, Lucknow, Mathura, Rampur, Rohtak, Simla, Udaipur and Varanasi, *East zone*. Agartala, Aizawl, Bhagalpur, Calcutta, Cuttack. Darbhanga Dibrugarh, Gauhati, Imphal Jeypore, Kohima, Kurseong Ranchi, Pasighat, Patna, Sambalpur, Shillong, Silchar, Siliguri, Tawang and Tezu *West zone* · Ahmadabad, Ambikapur, Aurangabad, Baroda, Bhopal, Bhuj, Bombay, Chhatarpur, Gwalior, Indore, Jabalpur, Jagdalpur, Jalgaon, Nagpur, Panaji, Parbhani, Pune, Raipur, Rajkot, Ratnagiri and Sangli, *South zone* Alleppey, Bangalore, Bhadravati, Calicut, Coimbatore Cuddapah, Dharwar, Gulbarga, Hyderabad Madras. Mysore, Mangalore, Pondicherry, Port Blair, Tiruchirapalli Tirunelveli, Trichur, Trivandrum Vijayawada and Vishakhapatnam, and *Kashmir zone* Jammu, Leh and Srinagar

TABLE 10·1

NUMBER OF BROADCAST RECEIVER LICENCES (RADIO)[1]

| Name of Circle | Domestic | Concessional | | | | Commercial | | | Possession | | Demon-stration | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cheap | Commu-nity | School | Hospital | Urban | Rural | Low cost | Dealer | Non-Dealer | | |
| Andhra Pradesh | 9,34,705 | 3,32,267 | 2,440 | 1,896 | 356 | 7,315 | 1,889 | 767 | 2,764 | 273 | 434 | 12,85,106 |
| Bihar | 4,97,149 | 1,00,077 | 910 | 854 | 96 | 2,732 | 888 | 310 | 1,764 | 68 | 350 | 6,05,198 |
| Delhi | 3,96,183 | 2,21,632 | — | 178 | 23 | 8,039 | 6 | 1,359 | 3,165 | 76 | 179 | 6,30,840 |
| Gujarat | 11,76,344 | 2,70,974 | 3,489 | 1,338 | 75 | 11,844 | 2,384 | 2,934 | 3,798 | 145 | 208 | 14,73,533 |
| Jammu & Kashmir | 85,846 | 58,043 | 1,011 | 51 | 12 | 1,015 | — | — | 609 | 6 | 125 | 1,46,718 |
| Kerala | 8,19,852 | 70,703 | 2,775 | 1,770 | 161 | 5,211 | 7,587 | 121 | 2,329 | 155 | 204 | 9,10,868 |
| Karnataka | 14,51,218 | 1,77,064 | 5,920 | 2,434 | 362 | 15,095 | 3,411 | 762 | 3,848 | 515 | 383 | 16,61,012 |
| Maharashtra | 22,08,533 | 1,63,277 | 8,755 | 2,531 | 54 | 17,270 | 3,822 | 621 | 5,514 | 626 | 431 | 24,11,434 |
| Madhya Pradesh | 6,98,492 | 1,21,491 | 3,073 | 605 | 132 | 5,897 | 911 | 780 | 2,256 | 138 | 572 | 8,34,347 |
| North Eastern | 1,95,945 | 13,451 | 3,720 | 218 | 24 | 1,171 | 276 | 6 | 702 | 37 | 198 | 2,15,748 |
| North Western | 8,71,927 | 6,77,825 | 509 | 869 | 161 | 7,806 | 3,125 | 8,669 | 4,735 | 217 | 772 | 15,76,615 |
| Orissa | 1,75,421 | 26,451 | 445 | 233 | 28 | 1,179 | — | — | 506 | 29 | 146 | 2,04,438 |
| Rajasthan | 4,77,244 | 1,30,827 | 324 | 1,340 | 119 | 6,975 | 2,351 | 2,513 | 2,486 | 137 | 439 | 6,24,755 |
| Tamilnadu | 16,04,035 | 1,36,424 | 16,460 | 8,797 | 172 | 14,496 | 3,609 | 322 | 5,420 | 827 | 669 | 17,91,231 |
| Uttar Pradesh | 10,11,455 | 4,28,970 | 3,509 | 1,083 | 77 | 10,259 | 1,828 | 4,214 | 6,285 | 425 | 280 | 14,68,385 |
| West Bengal | 8,09,285 | 6,04,791 | 1,419 | 455 | 79 | 4,557 | 1,747 | 830 | 4,145 | 95 | 182 | 14,27,585 |
| Army Postal Service | 85,702 | 5,366 | — | — | — | 413 | — | — | 416 | — | — | 91,897 |
| Total | 1,34,99,336 | 35,39,633 | 54,759 | 24,652 | 1,931 | 1,21,274 | 33,834 | 24,208 | 50,742 | 3,769 | 5,572 | 1,73,59,710 |

[1]As on 31 December 1976

country, its art, literature, music and socio-economic advance under the Five Year Plans.

In the 'home-service' programmes, 38 per cent of the broadcasting time is claimed by music and 23.5 per cent by news. 11.2 per cent of the time is allotted to talks and discussions, followed by 6.0 per cent for rural programmes. The principal ingredients of 'home service' programmes and their duration are given in table 10.2.

TABLE 10·2 COMPOSITION AND DURATION OF HOME SERVICE PROGRAMMES (1976)

| Type of Programme | Duration Hrs | Duration Mts | Approximate Percentage |
|---|---|---|---|
| Classical vocal | 22,288 | 22 | 7·0 |
| Classical instrumental | 21,047 | 31 | 6·6 |
| Folk vocal | 10,666 | 20 | 3·4 |
| Folk instrumental | 196 | 10 | 0·1 |
| Light vocal | 25,021 | 3 | 7·9 |
| Light instrumental | 3,433 | 20 | 1·1 |
| Devotional music | 14,161 | 4 | 4·6 |
| Film music | 17,750 | 24 | 5·6 |
| Western music | 5,388 | 57 | 1·7 |
| Talks, discussions, etc. | 35,586 | 47 | 11·2 |
| Drama | 13,757 | 59 | 4·3 |
| News | 74,664 | 55 | 23·5 |
| Religious | 417 | 3 | 0·1 |
| Children | 3,842 | 23 | 1·2 |
| Women | 4,520 | 48 | 1·4 |
| Rural | 18,974 | 16 | 6·0 |
| Industrial | 4,430 | 33 | 1·4 |
| Armed forces | 4,394 | 43 | 1·4 |
| Tribal | 5,559 | 34 | 1·8 |
| Educational | 8,359 | 15 | 2·6 |
| Publicity | 6,678 | 38 | 2·1 |
| Others | 15,931 | 23 | 5·0 |
| TOTAL | 3,17,071 | 28 | 100·0 |
| Vividh Bharati | 1,43,378 | 27 | |
| GRAND TOTAL | 4,60,449 | 55 | |

Music

Programmes of music are broadcast from all stations of AIR and consist of classical, light classical, light, folk, tribal and film music. A number of stations also broadcast western music. On an average around 35 per cent of the total broadcasting time is devoted to music. Classical music which was largely a preserve of some 'gharanas' and princely courts in the pre-broadcasting period, has now become popular through AIR programmes. A lot of interest has been created in forms and styles of India's ancient musical traditions.

Classical music programmes include a weekly national programme of music (started in 1952) which presents to a nation-wide audience the leading exponents of both Hindustani and Karnatak systems of music A festival of music, known as Radio Sangeet Sammelan, is also organised every year. Renowned artistes of both vocal and instrumental music, participate in the concerts which are held before an invited audience, at selected places in different parts of the country. The recording of these concerts are broadcast on AIR network The Sammelan is preceded by a music competition with the objective of discovering new talent from among the 16-24 age group musicians In all 51 concerts—27 of Hindustani and 24 of Karnatak music—were held during the Radio Sangeet Sammelan 1976. In April 1974 a programme of classical light music by young musicians was started. It consists of concerts in Hindustani music which are broadcast from

Delhi every Tuesday and are relayed by other stations of northern India, while concerts of Karnatak music are broadcast from Madras every Friday and are relayed by other stations of southern India. The aim of this programme of classical music is to discover and encourage young talent

A national programme of regional music, which brings to the listeners the rich tradition of folk and light music of the various regions of the country was started in January 1973. The programme is broadcast on the first Thursday of every month from Delhi and is relayed by all other stations of AIR.

The national orchestra, known as Vadya Vrinda consisting of both Hindustani and Karnatak instrumentalists was started in 1952 at the Delhi station, and a sizeable repertoire of compositions based on traditional ragas and folk tunes has been built up and more compositions are added to it every year. The experiment in the last two decades has proved beyond doubt that orchestration of Indian music has interesting possibilities. To enlarge the horizon another orchestral unit devoted exclusively for Karnatak style ragas has been set up at Madras station

In order to revive community singing and to inculcate a sense of integration among the masses, choral groups have been set up at selected stations like Delhi, Bombay, Calcutta and Madras for producing choral songs on patriotic and national integration themes. These songs intended to promote national integration are regularly broadcast from all stations of AIR. Apart from these, light music units have also been set up at Delhi, Bombay, Madras and Calcutta in order to produce high quality light music songs for broadcast.

Western music is broadcast by a number of AIR Stations and the transcription and exchange programmes bring to the Indian listeners excerpts from the performing arts from many parts of the world

**Plays and Features**

Each station broadcasts at least two plays every week. Besides original plays, radio adaptation of outstanding stage plays, novels and short stories are also broadcast. Outstanding plays from Indian languages are broadcast on the fourth Thursday of every month in the national programme of plays, started in 1956. A series of monthly chain-plays has also been broadcast since July 1972. Under this 12 model-plays are produced in a year and circulated amongst 18 major stations In addition, humourous plays/skits are also broadcast on the entire net work of Vividh Bharati

The national programme of features, started in 1956, focusses attention on matters of national importance or interest—in the political, economic, social or cultural spheres. These programmes fall into the following categories: Features (generally planned in advance) to commemorate important anniversaries or festivals; those designed to highlight political, social and economic issues of relevance; features on topical events and developmental features. The original script of these may be in English or Hindi, but is invariably translated into regional languages and is broadcast from all the regional stations.

**News and Current Affairs**

The News Services Division of AIR attempts comprehensive and speedy coverage of news and views through its news bulletins, commentaries and discussions on current affairs Besides noticing major trends in political, economic, social, cultural and scientific fields, it gives adequate attention to parliamentary proceedings, rural develop-

ment and sports activities. News is broadcast daily through 242 bulletins in 37 languages and 34 local dialects. Of these, 67 bulletins are beamed in the 'home service' from Delhi and relayed by other AIR stations; 116 regional bulletins are broadcast from 34 regional stations and 59 bulletins are beamed to listeners abroad. The regional bulletins were introduced in April 1953. Specialised news bulletins carrying world news, sports news and state and development news were introduced in 1974. News bulletin in one of the classical languages, Sanskrit is being broadcast from 1974. In addition to the slow speed bulletin in English, a slow sped bulletin in Hindi was introduced from May 1976. Two new services—a weekly news bulletin of "Human-interest Stories" in Hindi & other Indian languages and a daily press round up in English and Hindi—were started during 1977.

When Parliament is in session, daily commentaries in English as well as Hindi review the day's proceedings in the Houses. Weekly commentaries, in English and Hindi, of Parliamentary proceedings were introduced in 1977 Daily and weekly reviews of State Legislature are broadcast from State Capitals in the languages concerned. Commentaries by specialists in various fields and scripts from AIR's correspondents are broadcast in English, Hindi and Urdu in the programmes called 'Spotlight', 'Samayiki' and 'Tabsara' respectively. A special bulletin on 'Question Hour in Parliament is also broadcast. In the 'current affairs' programme every Sunday, specialists take up live issues for a threadbare discussion. Eye-witness accounts, interview with important persons and reactions of the common man to the happenings around him are presented through radio newsreels in both English and Hindi.

A major part of the news broadcast by AIR comes from its own correspondents. AIR has a corps of 311 correspondents in India and abroad, of whom 217 are part-time correspondents. The news broadcasts from AIR cover daily 32 hours and 57 minutes.

**External Services**

The external services broadcasts aim to project a true and objective image of the country to listeners abroad and to explain the country's point of view on matters of national and international importance. This is being done through daily commentary, press review and news bulletins The news bulletins are broadcast in all the language services, and the commentary and press review in most of them. These broadcasts also try to acquaint foreign listeners with the democratic, secular and socialistic pattern of India and to stimulate interest abroad in the rich heritage of our art, culture and traditions. The programmes highlight the progress that is being achieved in the Industrial and economic fields as well as on the social horizon. This is being done in 25 languages—17 foreign and 8 Indian—for about 54 hours daily reaching listeners in the widely scattered areas of the world.

**Vividh Bharati and Commercial Service**

Popular entertainment programmes in Hindi, known as Vividh Bharati programmes, started on 3 October 1957, are broadcast from 31 centres including two short wave transmitters at Bombay and Madras. The daily duration of Vividh Bharati programmes from Bombay is 6 hours and 30 minutes on all days and from Madras it is 10 hours and 20 minutes on week days and 10 hours and 50 minutes on Sundays. The remaining 28 centres have a duration of 12 hours and 50 minutes on week days and 13 hours and 20 minutes on Sundays and holidays. Film music, humorous skits, short plays and features are presented in

these programmes. Leading Indian film personalities present their favourite songs and recount their experiences in 'Jayamala' programme, which is broadcast for the Armed Forces.

Commercial advertising on the radio introduced on 1 November 1967 from Bombay-Nagpur-Pune on an experimental basis, was gradually extended to Calcutta (1968); Delhi and Madras-Tiruchirapalli (1969); Chandigarh-Jullundur, Bangalore, Dharwar, Ahmedabad-Rajkot, Kanpur-Lucknow-Allahabad (1970); Hyderabad-Vijayawada (1971) and Bhopal, Indore, Cuttack, Jaipur, Jodhpur, Patna, Ranchi, Trivandrum, Calicut and Srinagar (1975). Advertisements are accepted in any language as tape-recorded 'spots' of 7, 15, 30 and 60 seconds duration. Sponsored programmes were introduced in May 1970. In 1976-77 the revenue from commercial advertising amounted to Rs. 6.80 crores (provisionally).

Programmes for Special Audiences

The programmes for special audiences and occasions include programmes for the Armed Forces, women and children, the youth, sportsmen and students, rural and tribal people and industrial workers. Fourteen stations broadcast daily programmes for the Armed Forces, while 42 stations present programmes twice or thrice a week in regional languages for women with the objective of providing entertainment and imparting information on household topics

Family Weflare programmes are planned and produced by 22 full-fledged Family Welfare Units at various stations of AIR. Fourteen other stations have Field Reporters who look after the planning and production of these programmes Almost all the stations broadcast Family Welfare and Health programmes in a general way These programmes are integrated with the general programmes as well as those meant for special audience like rural, women youth and industrial workers.

Programmes for rural areas are planned and produced by farm and home units, which have been located at 49 stations. Keeping in view the pattern of development in particular areas, programmes pertaining to agriculture, animal husbandry, co-operation, cottage industries and allied subjects are also broadcast. In addition to the daily half-hour hard core programme, many stations broadcast twice a day agricultural news bulletins dealing with topical hints on farm operations designed to guide farmers on new methods of cultivation Some stations have started a special programme entitled "Farm School on the AIR" dealing with agriculture and animal husbandry for the benefit of farmers

Programmes consisting of both music and spoken word are put out in more than 100 tribal dialects for the Adivasis from various stations.

Special occasions like the Republic Day, Independence Day, visits of foreign dignitaries or the visits of Indian dignitaries abroad and anniversaries are extensively noticed by presenting special programmes on the national hook-up of AIR

'Yuva Vani', Sports and School Broadcasts

Programmes for the youth in Yuva Vani are broadcast from Calcutta, Delhi, Hyderabad, Jammu, Patna and Srinagar stations Yuva Vani was started from Delhi in 1969, from Calcutta and Hyderabad in 1970, from Jammu in 1974, and from Patna and Srinagar in 1975. This service provides a forum to the youth between the ages of 15 and 25 years, who present their viewpoint by participating in a wide range

of programmes—talks, discussions, interviews, plays, features and music. A youth news bulletin is also broadcast by the youth themselves.

In addition, 58 stations broadcast, relay programmes of varying duration and frequency in different languages for the youth. For students in school 35 stations broadcast programmes based on the school curriculum and 20 stations relay these programmes to reach students in the interior areas. There are about 42,000 schools equipped with radio sets in the country. Broadcasts for post school learners are beamed from 25 stations as part of youth broadcasts, once or twice a week as the case may be. Radio support to University correspondence degree courses are provided for Punjab, Punjabi, Kashmir, Delhi and Madurai Universities.

Sports events in India and abroad are covered by reviews, running commentaries and voice despatches. Four metropolitan centres of Bombay, Calcutta, Delhi and Madras present a daily sports service of 95 minutes that covers all the important sports events. Besides, two news bulletins, one in English and the other in Hindi, of 5 minutes duration, are also broadcast. A 10-minute sports newsreel is broadcast every Monday at 8.15 p.m.

**Audience Research**

The Audience Research Unit undertakes regular surveys and analyses of listeners' reactions to various types of programmes broadcast on the AIR network. It provides data for determining the rates of 'spots' and sponsored programmes in the commercial service, and also surveys the reception quality of various stations. Lately, it has undertaken feed forward surveys to provide basic information about the audience and the potential for programme coverage when a new AIR station or TV centre is started

**Transcription and Programme Exchange**

The transcription and programme exchange service of AIR helps different stations to receive and exchange outstanding programmes, transcribes. the speeches of eminent personalities and maintains the Library of Sound Archives.

The Archives Library, set up in 1954, collects and preserves on a permanent basis the recorded speeches of the President, Vice-President and Prime Minister. Voice recordings of several other eminent personalities like Rabindranath Tagore, Sarojini Naidu, Netaji, C. V. Raman, Sardar Patel, Madan Mohan Malaviya, Srinivasa Sastri, C. F. Andrews, Dwight Eisenhower and Lord Mountbatten etc. are also preserved.

The most valuable possession of the Archives consists of over 51 hours of recorded prayer speeches of Gandhiji and over a hundred hours of the recordings of reminiscenses of Mahatma Gandhi by eminent persons. The Library has nearly 21,000 tapes on stock with about 3,000 tape recordings of Jawaharlal Nehru's speeches.

Among other valuable items preserved are (i) recitations from the Vedas in Sanskrit in the traditional style, (ii) poetry recitations by eminent poets in Hindi and other languages; (iii) recitals by old masters of music, both Hindustani and Karnatak; (iv) selected items, of music by eminent musicians representing different gharanas;' (v) representative pieces of folk music, devotional music and stage songs and (vi) recordings of freedom fighters.

About 2,044 hours of music of great masters—both Hindustani and Karnatak and folk and regional music—has been preserved so far and 200 hours of music is added to it every year. Based on this material,

15 LP records of renowned masters have been commercially released.

Extensive use of archival material is being made by AIR for preparation of different categories of National Programmes The Delhi Station of AIR is broadcasting since April 1974, a weekly programme entitled 'Chayan' for one hour on Sundays based on recordings available in the Archives The National Council of Educational Research and Training (NCERT) have since 1976 prepared 69 taped programmes based on the Archival material for use by higher age group of students in schools. These programmes are also being utilised by AIR stations

The Archives Library has a project in hand for acquiring recordings of old master musicians from private collectors. A collection of recordings of Begum Akhtar and another collection of commercial recordings of old famous artists and old film songs has recently been added.

Nearly 5,000 verbatim transcripts of speeches of Prime Ministers and Presidents of India are preserved in the Archives in 72 bound volumes. Transcripts of 400 speeches of the President and the Prime Minister had been prepared during 1976.

The Programme Exchange Unit of this service circulates recordings and scripts received from AIR stations and foreign-broadcasting organisations All National Programmes— music, plays, features, talks/interviews and discussions—are circulated among the stations

Contributions from about 50 foreign broadcasting organisations are received, processed and circulated to AIR stations During the year, 4,470 hours of internal and 2,777 hours of foreign recordings were received and exchanged among the various stations.

In addition 30 feature programmes in Hindi based on material supplied by UN Radio service are produced by the Service every year and circulated to 15 AIR stations.

**Programme Journals**

All India Radio brings out eight programme journals. These are: Akashvani (English), Akashvani (Hindi), and Awaz (Urdu) published from Delhi; Betar Jagat (Bengali) and Akashi (Assamese) published from Calcutta, Vanoli (Tamil) from Madras; Vani (Telugu) from Vijayawada and Nabhovani (Gujarati) published from Ahmadabad Akashvani (English) is a weekly, while the rest of the journals are fortnightlies. External Services Division of AIR also brings out quarterly programme folders intended for the overseas listeners, one each in Arabic, Burmese, Chinese, French, Indonesian, Nepali, Persian, Pushtu, Swahili and Tibetan The journal in English, 'India Calling', is a monthly.

## DOORDARSHAN

Television set-up in India was delinked from All India Radio on 1 April 1976 under its new name 'Doordarshan'. The creation of Doordarshan as a separate department is meant for full development of the medium and specialised skills peculiar to television.

The first television centre in India was set up in Delhi on an experimental basis in September 1959 The programmes were meant for schools and rural areas. Community viewing centres known as 'Tele-clubs' were established for viewers The first General Service on a regular basis started from Delhi in August 1965

At present there are eight TV stations in the country, located at

Delhi, Bombay, Calcutta, Madras, Srinagar, Amritsar, Lucknow and Ahmadabad. There are two relay centres—one at Pune to relay Bombay programmes and the other at Mussoorie to relay Delhi programmes. Apart from these three transmitters have been functioning at Jaipur, Raipur and Gulbarga for providing terrestrial TV service under the SITE on-going plans. Some facts about TV stations, relay centres and SITE on-going transmitters are given in table 10.3.

**On-going SITE**

Satellite Instructional Television Experiment (SITE) which began on August 1975 and described as the biggest communication experiment of its kind ended successfully on 31 July 1976. The satellite was made available for beaming instructional programmes in four languages for four hours daily for a year. About 2,400 villages in the six states of Rajasthan, Madhya Pradesh, Orissa, Bihar, Andhra Pradesh and Karnataka, where special TV sets were provided benefited from these programmes.

In view of the success of SITE, the government decided to provide a terrestrial TV service specially to part of the villages in the area covered by SITE. A plan has been embarked upon according to which a chain of transmitters are to be installed at Jaipur, Raipur, Muzaffarpur, Sambalpur, Hyderabad and Gulbarga. Transmitters at Jaipur, Raipur and Gulbaraga have already been commissioned and the remaining will be commissioned in 1977. These transmitters would cover a total of 8,960 villages in the aforesaid states including 1,014 villages covered earlier by the SITE programmes

**Programming**

The main objective of television continues to be an aid for the socio-economic development of the country and to impart special education in a variety of ways These programmes are planned and produced in such a way so that both the urban and rural viewers benefit by the various services provided by the medium The attempt is to make these programmes objective, educative and entertaining

**School Telecast**

At present educational programmes for school students are telecast by Delhi, Bombay, Srinagar and Madras Doordarshan Kendras. Formal educational programmes are telecast by Delhi and Bombay Kendras and informal educational programmes by Delhi, Srinagar and Madras Kendras. While the Delhi Kendra telecasts 14 lessons in a week the other Kendras present two lessons a week. Each lesson is for a duration of 20 mts.

**Commercial Telecast**

Commercials on television were introduced in a small way on 1 January 1976. Presently all the Doordarshan Kendras telecast commercials on the same pattern as followed by AIR.

The revenue from Commercial TV till 31 March 1977 amounted to rupees one crore and thirty-one lakhs.

**Community viewing**

In order to ensure that the television programmes are viewed by a large number of people, television sets have been made available by the Government at selected community centres and in schools These

sets are maintained by Doordarshan. At present Delhi has 857 community viewing sets located in the rural areas around Delhi and Haryana and in the urban localities of Delhi. Srinagar has 550 sets located in the three districts of Anantnag, Srinagar and Baramula. Bombay 235 sets, Calcutta 125 sets, Lucknow 250 sets, Madras 125 sets and Punjab 125 sets. In addition Doordarshan has taken over 2,330 Community sets from Indian space Research Organisation which are to be distributed among the six TV on-going SITE transmitters.

Engineering

At present there are eight TV stations, two relay centres and three SITE On-going Transmitters in operation in the country. Television coverage is now available to about 675.10 lakhs of population spread over an area of about 1,52,500 sq kms. The urban population covered is 302.70 lakhs and rural 372.40 lakhs. Doordarshan covers 4.8% of the area and 12.3% of the population of India.

A full-fledged station at Jullundur and a relay centre at Kanpur are under installation The three On-going SITE transmitters at Muzaffarpur, Sambalpur and Hyderabad will be commissioned during 1977. TV towers at Lucknow, Kanpur, Calcutta and Jullundur are under installation and is expected to be completed by April 1978. The studio under installation at Amritsar transmitter site has since been commissioned.

A Central Master Switching Room has been set up at Delhi TV Centre with the ultimate objective of linking various TV stations through coaxial and microwave networks.

## THE PRESS

The Registrar of Newspaper for India, appointed under the provisions of the Press and Registration of Books (Amendment) Act, 1955, prepares an annual report on the press, which is presented to Parliament. The Registrar also allots newsprint and recommends import of printing machinery for newspapers.

The number of newspapers stood at 13,320 at the end of 1976 compared to 12,423 in 1975 showing an increase of 897 newspapers during the year. Out of a total number of newspapers published in the country, 4,220 (31.7 per cent) were from the four metropolitan cities of Delhi, Bombay, Calcutta and Madras.

Out of 13,320 newspapers, 875 were dailies, 74 tri/bi-weeklies, 3,801 weeklies and 8,570 other periodicals. Statewise, Maharashtra had the largest number of newspapers (1,948), followed by Delhi (1,637), Uttar Pradesh (1,597) West Bengal (1,347), Tamil Nadu (965) and Andhra Pradesh (860). Other States which had more than 500 newspapers in 1976 were Kerala (709), Rajasthan (692). Karnataka (658), Gujarat (534) and Madhya Pradesh (505).

The largest number of dailies (129) came from Maharashtra and smallest (one) appeared from Himachal Pradesh. Table 10.5 shows the state and periodicity wise details of the number of newspapers at the end of 1976.

A language-wise study of newspapers shows that the largest number 3,289 was published in Hindi, followed by 2,765 in English and 975 in Urdu. The languages which claimed more than 500 newspapers were : Bengali (855), Marathi (806), Tamil (618), Gujarati (580)

TABLE 10·3

NUMBER OF DOORDARSHAN KENDRAS/RELAY CENTRES/SITE ON-GOING TRANSMITTERS

| Name of TV station | Date of commissioning | Service range (kms) | Power of transmitter (kw) | Height of Tower mast (metre) | Area covered (kms) | Population covered (lakhs) | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Urban | Rural | Tota |
| (A) *TV Stations* | | | | | | | | |
| Delhi | 15-9-59 | 68 | 10 | 100 | 14,300 | 67 5 | 25·5 | 93 |
| Bombay | 2-10-72 | 70—100 | 10 | 300 | 10,000 | 65 | 20 | 85 |
| Calcutta | 9-8-75 | 50 | 10 | 100 | 7,900 | 63 | 52 | 115 |
| Madras | 15-8-75 | 80 | 10 | 175 | 12,000 | 36 | 25 | 61 |
| Srinagar | 26-1-73 | 30—70 | 10 | 122 | 4,000 | 5 | 20 | 25 |
| Amritsar | 29-9-73 | 65 | 10 | 100 | 8,400 | 6 | 14 | 20 |
| Lucknow | 27-11-75 | 60 | 10 | 100 | 11,300 | 9 | 46 | 55 |
| Ahmedabad | 1-8-75 | 40 | 1 | 100 | 5,000 | 2·9 | 13·7 | 16 6 |
| (B) *Relay Centres* | | | | | | | | |
| Pune | 2-10-73 | 52-90 | 0·6 | 100 | 15,000 | 14 | 26 | 40 |
| Mussoorie | 12-8-77 | 165 | 10 | 91 | 29,200 | 19 | 93 | 112 |
| (C) *Site On-going Transmitters* | | | | | | | | |
| Jaipur | 1-3-77 | 90 | 10 | 100 | 25,400 | 8·3 | 26·7 | 35 |
| Raipur | 10-5-77 | 40 | 1 | 100 | 5,000 | 5 | 6·5 | 11·5 |
| Gulbarga | 3-9-77 | 40 | 1 | 100 | 5,000 | 2 | 4 | 6 |

TABLE 10·4

NUMBER OF BROADCAST RECEIVER LICENCES (TELEVISION)[1]

| Name of Circle | Concessional | | | | | Commercial | Demonstration | Dealer | Non-Dealer | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | Domestic | Cheap | Community | School | Hospital | | | | | |
| Andhra Pradesh | 68 | 880 | — | — | — | 3 | 2 | — | — | 953 |
| Delhi | 1,53,812 | 73 | 34 | 832 | 22 | 795 | 184 | — | 6 | 1,55,758 |
| Gujarat | 2,481 | — | 343 | 2 | — | 121 | 14 | — | 5 | 2,966 |
| J & K | 4,251 | 30 | 543 | — | — | 8 | 6 | 1 | — | 4,839 |
| Kerala | 8 | 3 | — | — | — | — | — | 16 | — | 27 |
| Maharashtra | 1,99,447 | — | 469 | 366 | 22 | 1,547 | 25 | 121 | 75 | 2,02,072 |
| N. Western | 47,314 | 245 | — | — | — | 519 | 15 | — | — | 48,093 |
| Rajasthan | 64 | — | 438 | — | — | — | — | — | — | 502 |
| Tamil Nadu | 17,735 | 10 | 27 | 32 | 1 | 473 | 174 | 83 | 5 | 18,540 |
| U.P. | 19,162 | — | — | — | — | 574 | 275 | — | — | 20,011 |
| West Bengal | 23,814 | 238 | — | — | — | 529 | 146 | 36 | — | 24,763 |
| A.P.S. | 647 | 12 | — | — | — | 9 | 2 | — | 32 | 702 |
| Total | 4,68,803 | 1,491 | 1,854 | 1,232 | 45 | 4,578 | 843 | 257 | 123 | 4,79,226 |

[1]As on 31 December 1976.

and Malayalam (539). Bilingual numbered 1,087. Table 10.6 shows publication of newspapers at the end of 1976 language-wise.

TABLE 10.5
NUMBER OF PAPERS
(State-wise)

| State/Union Territory | Dailies | Tri/Bi-weeklies | Weeklies | Others | Total 1976 | Total 1975 |
|---|---|---|---|---|---|---|
| Andhra Pradesh | 37 | 2 | 318 | 503 | 860 | 802 |
| Assam | 6 | 2 | 32 | 56 | 96 | 78 |
| Bihar | 19 | 2 | 160 | 164 | 345 | 306 |
| Gujarat | 34 | 2 | 136 | 362 | 534 | 525 |
| Haryana | 4 | 2 | 85 | 145 | 236 | 232 |
| Himachal Pradesh | 1 | — | 18 | 51 | 70 | 66 |
| Jammu & Kashmir | 20 | — | 94 | 29 | 143 | 135 |
| Karnataka | 76 | 3 | 179 | 400 | 658 | 597 |
| Kerala | 93 | 2 | 96 | 518 | 709 | 665 |
| Madhya Pradesh | 78 | 7 | 258 | 162 | 505 | 481 |
| Maharashtra | 129 | 14 | 452 | 1,353 | 1,948 | 1,805 |
| Manipur | 11 | — | 3 | 26 | 40 | 33 |
| Meghalaya | 2 | 3 | 15 | 14 | 34 | 28 |
| Nagaland | — | — | 3 | 1 | 4 | 4 |
| Orissa | 11 | — | 22 | 134 | 167 | 157 |
| Punjab | 27 | 2 | 157 | 273 | 459 | 422 |
| Rajasthan | 37 | 1 | 303 | 351 | 692 | 670 |
| Tamil Nadu | 66 | 1 | 120 | 778 | 965 | 869 |
| Tripura | 7 | 2 | 30 | 4 | 43 | 37 |
| Uttar Pradesh | 128 | 21 | 764 | 684 | 1,597 | 1,557 |
| West Bengal | 35 | 6 | 280 | 1,026 | 1,347 | 1,232 |
| Arunachal Pradesh | — | — | — | — | — | — |
| Andaman, Nicobar Islands | 2 | — | 2 | 4 | 8 | 6 |
| Chandigarh | 2 | — | 25 | 93 | 120 | 105 |
| Dadra and Nagar Haveli | — | — | 1 | — | 1 | 1 |
| Delhi | 37 | 1 | 230 | 1,369 | 1,637 | 1,517 |
| Goa, Daman & Diu | 7 | — | 5 | 23 | 35 | 32 |
| Mizoram | 6 | — | 7 | 4 | 17 | 13 |
| Pondicherry | — | 1 | 6 | 43 | 50 | 48 |
| Total | 875 | 74 | 3,801 | 8,570 | 13,320 | 12,423 |

TABLE 10.6
NUMBER OF PAPERS
(Language-wise)

| Language | Dailies | Tri/Bi-weeklies | Weeklies | Others | Total 1976 | Total 1975 |
|---|---|---|---|---|---|---|
| English | 89 | 5 | 324 | 2,347 | 2,765 | 2,559 |
| Hindi | 252 | 27 | 1,456 | 1,554 | 3,289 | 3,142 |
| Assammese | 3 | 1 | 12 | 33 | 49 | 38 |
| Bengali | 22 | 7 | 231 | 595 | 855 | 771 |
| Gujarati | 37 | 3 | 139 | 401 | 580 | 567 |
| Kannada | 53 | 3 | 122 | 214 | 392 | 348 |
| Kashmiri | — | — | 1 | — | 1 | 1 |
| Malayalam | 91 | 2 | 82 | 364 | 539 | 498 |
| Marathi | 94 | 9 | 252 | 451 | 806 | 748 |
| Oriya | 10 | — | 17 | 111 | 138 | 135 |
| Punjabi | 12 | 1 | 109 | 156 | 278 | 259 |
| Sanskrit | 1 | — | 2 | 20 | 23 | 22 |
| Sindhi | 4 | — | 19 | 35 | 58 | 55 |
| Tamil | 58 | — | 94 | 466 | 618 | 556 |
| Telugu | 17 | 1 | 122 | 301 | 441 | 418 |
| Urdu | 94 | 6 | 482 | 393 | 975 | 929 |
| Bilingual | 18 | 9 | 262 | 798 | 1,087 | 992 |
| Multilingual | 4 | — | 46 | 214 | 264 | 247 |
| Others | 16 | — | 29 | 117 | 162 | 138 |
| Total | 875 | 74 | 3,801 | 8,570 | 13,320 | 12,423 |

Circulation of Newspapers

The data available for 1976 show that the newspapers had a circulation of 340.75 lakh copies compared to 338.22 lakh in 1975. The circulation of dailies in 1976 was 93.38 lakhs as compared to 93.83 in 1975. Out of 7,537 newspapers for which the publishers supplied circulation data, 7,188 or 95.4 per cent claimed a circulation of upto 15,000 copies per publishing day ('small' newspapers) and had a combined circulation of 148.62 lakhs or 43.6 per cent of the total. Another 234 newspapers having circulation between 15,001 and 50,000 copies ('medium' newspapers) claimed a combined circulation of 62.28 lakhs or 18.3 per cent. However, 115 newspapers, having circulation of more than 50,000 copies ('big' newspapers), together accounted for 129.85 lakhs or 38.1 per cent of the total circulation of all the newspapers in India.

Newspapers in English had the highest circulation of 78 28 lakhs copies in 1976. The total circulation of English publications fell from 79 38 lakhs in 1975 to 78.28 lakhs in 1976. Hindi fared better with a total circulation of 77.38 lakh copies as against 76.02 lakhs in 1975. Other major language newspapers having a circulation of 10 lakhs and above were : Tamil 33.13 lakhs, Malayalam 26.22 lakhs, Gujarati 21.99 lakhs, Marathi 21.31 lakhs, Bengali 18.97 lakhs, Urdu 14 93 lakhs, Telugu 13.34 lakhs and Kannada 12.28 lakhs. Among the principal languages, Sanskrit newspapers had the lowest circulation (12,000 copies). The language and periodicity wise breakup of the total circulation of 340.75 lakhs is given in table 10.7

TABLE 10·7
CIRCULATION (LANGUAGE AND PERIODICITY-WISE) IN 1976

(in thousands)

| Language | Dailies | Tri/bi-weeklies | Weeklies | Other periodicals | Total |
|---|---|---|---|---|---|
| English | 2,259 | 6 | 1,255 | 4,308 | 7,828 |
| Hindi | 1,918 | 32 | 2,269 | 3,519 | 7,738 |
| Assamese | 36 | 9 | 53 | 26 | 124 |
| Bengali | 586 | 9 | 418 | 884 | 1,897 |
| Gujrati | 782 | 35 | 559 | 823 | 2,199 |
| Kannada | 357 | 3 | 364 | 504 | 1,228 |
| Kashmiri | — | — | — | — | — |
| Malayalam | 1,042 | — | 727 | 853 | 2,622 |
| Marathi | 861 | 10 | 386 | 874 | 2.131 |
| Oriya | 97 | — | 16 | 99 | 212 |
| Punjabi | 79 | — | 237 | 256 | 572 |
| Sanskrit | 2 | — | 3 | 7 | 12 |
| Sindhi | 15 | — | 27 | 19 | 61 |
| Tamil | 672 | -- | 1,418 | 1,223 | 3,313 |
| Telugu | 216 | 2 | 487 | 629 | 1,334 |
| Urdu | 376 | — | 603 | 514 | 1,493 |
| Bilingual | 28 | 17 | 270 | 673 | 988 |
| Multilingual | 2 | — | 37 | 160 | 199 |
| Others | 10 | — | 25 | 89 | 124 |
| Total | 9,338 | 123 | 9,154 | 15,460 | 34,075 |

There were, in 1976, a total of 6,129 newspapers, which were also in existence in 1975. Described as 'common papers' their circulation registered an increase of 5.6 per cent in 1976. Language wise, the highest increase of 15.1 per cent was achieved by Assamese papers, followed by 11.3 per cent in Gujarati and 10.1 per cent in Bengali. Circulation data of common papers are given in table 10 8

TABLE 10·8
CIRCULATION OF COMMON PAPERS (LANGUAGE-WISE)

| Language | No. of Papers | Circulation ('000) | | Increase decrease (Per cent) |
|---|---|---|---|---|
| | | 1975 | 1976 | |
| English | 1,289 | 6,612 | 7,032 | (+)6·4 |
| Hindi | 1,294 | 6,485 | 7.059 | (+)8·9 |
| Assamese | 22 | 106 | 122 | (+)15·1 |
| Bengali | 532 | 1,689 | 1,860 | (+)10·1 |
| Gujarati | 303 | 1,607 | 1,789 | (+)11·3 |
| Kannada | 220 | 1,130 | 1.202 | (+)6·4 |
| Malayalam | 233 | 2,368 | 2.481 | (+)4 8 |
| Marathi | 372 | 1.793 | 1 835 | (+)2·3 |
| Oriya | 48 | 196 | 196 | 0·0 |
| Punjabi | 130 | 477 | 510 | (+)6 9 |
| Sanskrit | 10 | 8 | 8 | 0·0 |
| Sindhi | 23 | 58 | 56 | (—)3·4 |
| Tamil | 280 | 3,243 | 3,119 | (—)3·8 |
| Telugu | 228 | 1,112 | 1.192 | (+)7·2 |
| Urdu | 480 | 1,224 | 1,263 | (+)3·2 |
| Bilingual | 465 | 828 | 825 | (—)0 4 |
| Multilingual | 118 | 200 | 196 | (—)2 0 |
| Others | 82 | 91 | 110 | (+)20 8 |
| Total | 6,129 | 29,927 | 30,855 | (+)5 6 |

TABLE 10·9
DAILIES WITH CIRCULATION ABOVE ONE LAKH

| Name, Language an place of publication | Circulation | |
|---|---|---|
| | 1976 | 1975 |
| Ananda Bazar Patrika, Bengali Calcutta | 2,91,129 | 2,90,086 |
| Nav Bharat Times, Hindi, Delhi | 2,44,598 | 2,12 082 |
| Malayaia Manorama, Malayalam, Kottayam | 2,09,841 | 1,90 437 |
| Times of India English, Bombay | 2,01,787 | 1.73,212 |
| Hindustan Times, English, Delhi | 1,89,942 | 1,70,482 |
| Jugantar, Bengali, Calcutta | 1,88,143 | 1,90,059 |
| Hindu, English, Madras | 1,67,246 | 1,64,408 |
| Lokasatta, Marathi, Bombay | 1,66,360 | 1,49,818 |
| Statesman, English, Calcutta | 1,53,692 | 1,51,172 |
| Hindustan, Hindi, Delhi | 1,40,547 | 1,48,867 |
| Mathrubhumi Malayalam, Cochin | 1,40,394 | 1,45 065 |
| Bombay Samachar, Gujarati, Bombay | 1 32,692 | 1,28,894 |
| Maharashtra Times, Marathi, Bombay | 1 31,572 | 1,15,190 |
| The Tribune, English, Chandigarh | 1.23.162 | 1,20,119 |
| Kerala Kaumudi, Malayalam, Trivandrum | 1.21.101 | 1,29,519 |
| Malayalam Manorama, Malayalam, Calicut | 1,17,603 | 1,09,728 |
| Mathrubhumi, Malayalam, Calicut | 1.12,101 | 1,18,276 |
| Times of India, English, Delhi | 1,11.462 | 95,839 |
| Amrita Bazar Patrika, English, Calcutta | 1,08,805 | 1,08,296 |
| Prajavani, Kannada, Bangalore | 1,07,791 | 1,08,024 |
| Gujarat Samachar, Gujarati, Ahmedabad | 1,07,740 | 1,03,160 |
| Dinamani, Tamil, Madurai | 1,02,779 | 1,06,605 |
| Sandesh, Gujarati, Ahmedabad | 1,01,709 | 1,00,882 |

OWNERSHIP

A majority of the newspapers are owned by individuals. In 1976, out of 13,320 newspapers, 8,104 or 60.9 per cent were under individual ownership, followed by societies and associations, which owned 2,541 or 19.1 per cent of the newspapers The central and state governments together owned 499 or 3 8 per cent of the newspapers.

Newspapers owned by individuals commanded a circulation of 94 35 lakhs (27.7 per cent) copies, while 440 newspapers owned by joint stock companies claimed a circulation of 135 23 lakhs (39.7 per cent) copies. Table 10.10 gives the circulation data and ownership pattern of the newspapers

TABLE 10·10
OWNERSHIP PATTERN

| Form of ownership | Number of papers[1] | 1976 Circulation ('000) | 1976 Percentage to total circulation |
|---|---|---|---|
| Central government | 134 | 552 | 1 6 |
| State government | 73 | 425 | 1 2 |
| Individual | 4,346 | 9,435 | 27·7 |
| Public Companies | 175 | 7,533 | 22·1 |
| Private Companies | 265 | 5,990 | 17 6 |
| Firm/Partnerships | 460 | 3,521 | 10 3 |
| Trusts | 234 | 2,243 | 6 6 |
| Cooperative Societies | 71 | 161 | 0·5 |
| Societies/Associations | 1,569 | 3,669 | 10·8 |
| Educational Institutions | 152 | 334 | 1 0 |
| International Oraganisations | 6 | 10 | — |
| Political Parties | 52 | 202 | 0 6 |
| Total | 7,537 | 34,075 | 100 0 |

[1]Represents newspapers whose circulation data were available

**Newsprint**

The requirements of newsprint for newspapers and periodicals in the country are met through indigenous production of the National Newsprint and Paper Mills at Nepa Nagar in Madhya Pradesh and through imports. The total indigenous production for the year 1976-77 was 55,000 metric tonnes and 1,50,000 metric tonnes was imported from USSR, Czechoslovakia, Canada, Bangladesh, Finland and Japan

The Newsprint Policy for the Year 1976-77 (announced on 12 July 1977) provided a growth rate of five per cent over the consumption of newsprint by individual newspapers during the year 1975-76. Newsprint is available in plenty and newspapers have no difficulty in obtaining the quantity required by them.

**Press Laws**

In order to restore the freedom of the Press, the statutory censorship order that was in force since June 1975 was revoked. The Prevention of Publication of Objectionable Matters Act, 1976 was also repealed With a view to restoring the immunity enjoyed by the press in the matter of reporting the proceedings of Parliament. the Parliamentary Proceedings (Protection of Publications) Act, 1956 was revived. The Press Council of India is proposed to be reestablished to up-hold and protect the freedom of the press and maintain the standards of newspapers. There is also a proposal to set up a second Press Commission to examine the Status of press in India, particularly in the context of developments after the Report of the First Press Commission (1954) and to make recommendations regarding the future course of its development.

**Newsprint Advisory Committee**

A newsprint advisory committee, first set up in July 1964. advises the government on import and allocation policy for newsprint and printing machinery. As re-constituted in 1975. the committee has the Minister of Information and Broadcasting as the chairman. Members include three nominees of the Indian and Eastern Newspapers Society, two nominees of the Indian Language Newspapers Association, six officials and nine other nominees of the government. Non-official

members holds office for two years from the date of appointment but can be re-appointed. The committee meets ordinarily twice a year.

**Press Information Bureau**

The Press Information Bureau disseminates information about the policies and programmes of the Government of India through the media of the press. It also keeps the government informed of the reaction to these policies as reflected in the press. PIB officers attached to the ministries issue press releases and feature articles, arrange press conferences and maintain contacts with the Indian and foreign correspondents and cameramen accredited to the Government of India. The PIB also co-ordinates publicity with the state governments and the public sector undertakings. It also maintains liaison with the External Publicity Division of the Ministry of External Affairs and supplies publicity material to Indian diplomatic missions abroad.

The Bureau's information material is issued in English, Hindi, and 16 other languages and is supplied not only to news agencies and journals stationed in Delhi but also to the language press all over the country through its 31 regional and branch offices, which are linked by teleprinter circuits with the headquarters in Delhi. An extensive photo service caters to the needs of newspapers and journals which have block-making facilities, while 249 Urdu newspapers receive every week five 'charbas'—impression of a zinc block news photograph on a specially treated paper, which can be printed off without making a block.

For the benefit of small and medium newspapers, PIB provides special services like the weekly digest of news, short illustrated feature articles on diverse subjects, economic digest, agricultural newsletter, science notes, health and family welfare newsletter and book reviews. For district level Hindi papers, a special weekly service "Gramin Pātra Seva" has been introduced. Illustrated success stories covering development activities are also supplied to newspapers. In 1975-76, 69,208 press releases were issued, of which 14,683 were in English, 8,073 in Hindi and 46,272 in 16 other Indian languages. In 1976-77 a total of 1,04,159 press releases were issued, of which 19,542 were in English, 12,329 in Hindi and 72,288 in 16 other Indian languages.

A Central Press Accredition Committee advises the Government on accredition of press correspondents, cartoonists and cameramen. Besides issuing publicity material, the Bureau assists there correspondents with facilities like housing, telephone, medical, travel and customs clearance Three hundred eighty Indian and foreign correspondents and about 110 cameramen are accredited to the Government of India.

Ten news and feature agencies are accredited to the Central Government. Of them, the 'Samachar' which has a wire service is a news agency, and the others—India News and Feature Alliance, India Press Agency, National News Service, News Bureau of India, Press Asia International, Foreign News and Features, POT Analyses and News Service, Cartographic News Services and Television News Features—are news-*cum*-feature agencies. In addition, the following 19 foreign news agencies have been given accredition—Agence France Presse (France); Ansa (Italian National News Agency); Associated Press of America (USA); Allgemeiner Deutscher Nachrichtendienst (Berlin); Deutshe Pressee Agenture, German Press Agency (FRG); Depthnews Asia, Manila (Philippines); Economic News Service (Hong Kong); Iraqui News Agency (Baghdad); Kyodo News Service (Tokyo); Polish Press Agency (Poland); Reuters (UK); Tass (Moscow); United Press

International (USA); World Feature Services Ltd. (London); Bangladesh Sangabad (Dacca); Novosty Press Agency (USSR); Tanjug Yugoslav News Agency; Bulgarian Telegraphy Agency and Czechoslovak News Agency.

Information Centres

PIB runs Information Centres at New Delhi, Jullundur, Srinagar, Imphal, Aizawl, Kohima and Port Blair. They provide reading room and library facilities and answer queries posed by the journalists and the public. Film shows are also arranged at these centres. Some of the state governments also maintain Information Centres at New Delhi and elsewhere. In addition, there are Information Centres maintained by certain central departments.

Wall Newspaper

A single-sheet weekly wall newspaper, 'Hamara Desh', which is being edited by PIB (launched in 1970) is published in English, Hindi, Urdu, Bengali, Khasi, Malayalam, Tamil, Marathi, Garo and Lushai. It projects the country's achievements and progress in various fields. Copies are displayed at key points in government offices and private organisations, railways stations, canteens, schools and other places, particularly in remote areas

News Agencies

The four main news agencies *viz.*, Press Trust of India (PTI), United News of India (UNI), Samachar Bharati and Hindustan Samachar merged into a single news agency, under pressure, in early 1976. A society named Samachar was registered under the Societies Registration Act and the four news agencies agreed to perform all functions on behalf of Samachar. Accordingly, news agencies adopted a common bye-line of Samachar from 1 February 1976. Samachar, which came into being at the instance of the then government, had lacked adequacy, independence and objectivity in its news coverage. As a result, serious doubts were expressed about its credibility.

The March 1977 poll swept in a new party into power which promised to restore press freedom. The new government appointed a 12-member committee under the chairmanship of Shri Kuldip Nayar to examine the news agency set-up. The committee submitted its report on 23 August 1977.

A cabinet sub-committee which considered the report did not agree with this committee's findings and favoured the restoration of the original position as it obtained before the formation of Samachar. Any further reorganisation would have to be left to the news agencies themselves The four news agencies started functioning separately from 1 April 1978.

Of the four principal news agencies which had opted for merger the PTI and the UNI supplied news in English. The other two were operating through the medium of Hindi and other Indian languages. PTI started its operations in 1949 after taking over Reuters' business in India as well as the interests of the Associated Press of India. In 1975 it had about 400 subscribers—195 press, 109 commercial and 96 others It had over 45,000 km of teleprinter lines to connect its 63 bureaux all over India and its offices in Dacca and Colombo. The UNI which started its operations in 1961 had over 50 branch offices located at all the important state capitals and other important news centres. It had a network of 40,000 km of leased teleprinter lines and had installed some 400 teleprinters for transmitting news. Both the agencies mostly depended upon arrangements with foreign inter-

national news agencies for collection of news from abroad. Samachar Bharati and Hindustan Samachar mainly served the language press.

Non-Aligned News Agencies Pool

Non-Aligned countries met for the first time at the level of Information Ministers between 8—13 July 1976 at New Delhi and in a declaration took note of "the persistent and the serious imbalance in the current global information situation" and its adverse effects on the non-aligned countries, stressed the need "to liberate their information and mass-media" from the colonial legacy, and expressed their collective determination to rectify this situation. The declaration called for "the decolonisaion of information" and "the establishment of a new international order for information", which was felt to be "as necessary as the new economy order." To give practical shape to this urge it was decided to organise a non-aligned news agencies pool. The conference adopted a constitution for the non-aligned news agencies pool and set up a coordinating Committee to make the pool operational India took the lead in proposing the formation of the pool and was elected the chairman of the Coordinating Committee Thus the non-aligned News Agencies Pool was born on 13 July 1976.

The Non-aligned Summit held in Colombo in August 1976, approved the recommendations of the New Delhi conference India was also included as a members of the coordinating council at Government level for cooperation in other fields of information and Communication set-up by the Summit.

The exchange of news between the Indian news agencies and a number of national news agencies of non-aligned countries began during the year

## FILMS

Feature films are being produced in India since 1912-13. While R.G. Torney produced 'Pundalik' in 1912, Dada Saheb Phalke produced 'Raja Harishchandra' in 1913. The era of silent films was overtaken by the talkie era in 1931 when Ardeshir Irani produced 'Alam Ara'. Over the years, more than 13,170 feature films have been produced in India which now leads the world in the annual output of feature films. From January 1976 to September 1977, 884 feature films were produced, 493 of them in colour. Bombay, Calcutta, and Madras are the most important centres for the making of films. From January 1976 to September 1977, 278 films were produced in Bombay, 73 in Calcutta and 533 in Madras. The number of feature films produced in various languages and certified for public exhibition for selected years since 1951 is shown in table 10.11.

As many as 3,911 short films, including 2,280 films in 35 mm, 1,595 films in 16 mm and 41 films in 8 mm were certified for public exhibition from January 1976 to September 1977.

Films are produced on various themes. Social subjects, however, predominate and 610 films in this category were certified from January 1976 to September 1977. Table 10 12 gives the thematic classification of feature films certified for public exhibition from 1970 to September 1977.

Documentaries and Newsreels

Weekly Indian News Review, cartoon films, quickies and documentaries required for public information, education and instruction are produced by the Films Division of the Ministry of Information and Broadcasting The Division set up in 1948 had a modest beginning

TABLE 10.11
OUTPUT OF FEATURE FILMS

| Language | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 Upto 30 Sept |
|---|---|---|---|---|---|---|---|---|
| Assamese | 3 | 5 | 7 | 8 | 3 | 6 | 5 | 3 |
| Arabic | — | — | — | — | — | — | — | — |
| Bengali | 33 | 30 | 25 | 35 | 36 | 35 | 32 | 22 |
| Dogri | — | — | — | — | — | — | — | — |
| English | 1 | 1 | 4 | 1 | 1 | 1 | 2 | 2 |
| Gujarati | 5 | 3 | 4 | 5 | 7 | 12 | 29 | 21 |
| Hindi[1] | 104[2] | 121[3] | 134[4] | 141[6] | 136[7] | 120[8] | 107[9] | 93[10] |
| Kannada | 38 | 33 | 20 | 32 | 30 | 39 | 45 | 33 |
| Kashmiri | — | — | — | — | — | — | — | — |
| Konkani | 1 | 1 | — | — | — | 1 | 1 | 1 |
| Malayalam | 43 | 52 | 47 | 60 | 54 | 77 | 84 | 54 |
| Marathi | 19 | 23 | 13 | 14 | 11 | 17 | 10 | 12 |
| Nepali | — | — | — | — | 2 | — | — | — |
| Oriya | — | 1 | 1 | 2 | 1 | 3 | 6 | 6 |
| Punjabi | 2 | 2 | 3 | 5 | 4 | 5 | 10 | 10 |
| Sindhi | — | 1 | 1 | 1 | — | — | — | — |
| Tamil | 76 | 73 | 77 | 66 | 79 | 71 | 81 | 44 |
| Telugu | 71 | 85 | 73 | 74 | 69 | 88 | 93 | 74 |
| Tulu | — | 2 | 2 | 4 | 2 | — | 2 | 2 |
| Total | 396 | 433 | 414[5] | 448 | 435 | 475 | 507 | 377 |

1 Includes Urdu, Rajasthani and Hindustani films
2 Includes one Hindi film with sub-titles in French.
3 Includes one Bhojpuri, 14 Hindustani, One Maithili, one Chhatisgarhi and four Urdu films
4 Seven of these films were in Hindustani.
5 The total includes one film in Coorgi, two in Manipuri and one in Thai Language
6 Includes one Haryanavi, one Rajasthani, two Urdu and one Hindustani films
7 Includes one Haryanavi film
8 Includes two Urdu films
9 Includes one Manipuri film
10 Includes two Bhojpuri films

TABLE 10·12
Thematic Classification

| Theme | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 upto 30 Sept. |
|---|---|---|---|---|---|---|---|---|
| Social | 254 | 283 | 273 | 305 | 268 | 313 | 332 | 278 |
| Crime | 80 | 83 | 82 | 102 | 98 | 89 | 86 | 40 |
| Fantasy | 13 | 8 | 9 | 1 | 5 | 7 | 9 | 3 |
| Historical | 2 | 5 | 2 | 5 | 4 | 7 | 10 | 4 |
| Biographical | 3 | 2 | 3 | 1 | 2 | 1 | 2 | 2 |
| Mythological | 18 | 16 | 16 | 19 | 27 | 19 | 27 | 16 |
| Legendary | 18 | 12 | 5 | 5 | 13 | 14 | 27 | 17 |
| Devotional | 1 | 8 | 6 | 8 | 14 | 12 | 6 | 15 |
| Children | 7 | 13 | 2 | 1 | 1 | 7 | 4 | 1 |
| Stunt | — | 1 | 6 | — | — | 1 | 2 | — |
| Adventure | — | — | 3 | — | — | — | — | — |
| Political | — | 1 | 2 | — | — | — | — | — |
| Documentary | — | 1 | 4 | 1 | 2 | 1 | 2 | 1 |
| Horror | — | — | 1 | — | — | — | — | — |
| Scientific and Technical | — | — | — | — | 1 | 4 | — | — |
| Total | 396 | 433 | 414 | 448 | 435 | 475 | 507 | 377 |

with the production of only 33 documentary films, 12 compilations and 52 newsreels in 1949-50. Currently, through its annual production

of 130 short films (including four cartoon films), 52 national newsreels and 52 regional newsreels, the Division has been recording the contemporary history of India and presenting filmic reports on the socio-economic progress of the country. Most of the films are produced in English and 14 regional languages.

Important newsworthy events within and outside India are included in the weekly national newsreels. The Films Division has exchange arrangements with 22 foreign newsreel organisations for free exchange of important international news events. Eighteen newsreel cameramen stationed at various centres in India cover important news events. News events are also filmed by stringers. At present, the Division releases one newsreel per region in a month. The cartoon film unit of the Division produces cartoons by using a variety of techniques.

Every cinema house in India is required, under the terms of its licence, to exhibit at each performance not more than 609 metres of 'approved films' supplied by the Division on a rental of one per cent of the average weekly collections. One newsreel and two short films are released every week at important centres These are then rotated to cinema houses at other places in the country. In 1976-77 the Division earned Rs 201 lakhs by way of rentals from cinema houses. From 1 April 1977 to 30 September 1977 the rentals amounted to Rs 78.4 lakhs. During 1976-77, 22,224 prints were supplied free of charge to various publicity units and from 1 April 1977 to 30 September 1977 5,417 prints were supplied free of charge.

The Division also supplies prints on loan to government departments, semi-government bodies, educational and charitable institutions, hospitals, social welfare organisations and individuals through its seven distribution branch offices, as well as through the Regional and Field Publicity Units of the Directorate of Field Publicity, for non-commercial shows free of charge.

Documentaries considered suitable for exhibition abroad are supplied to 123 Indian Missions abroad at the instance of the Ministry of External Affairs. The Division has regular arrangements for the screening of its documents and newsreels in cinema houses in Fiji Islands and Mauritius. It also sells films to television organisations all over the world on royalty as well as rental basis.

In 1976-77, the Division produced 119 (73 B&W and 46 colour) documentary films through its own units and 40 (19 B&W and 21 colour) films were produced through outside producers from April 1977 to 30 September 1977. The Division produced 27 (16 B&W and 11 colour) films through its own units and five (1 B&W and 4 colour films were produced through outside producers. The Division released 164 documentary films, and 129 newsreels during 1976-77. They included 115 documentary films, 52 national newsreels, 38 regional newsreels and six special newsreels produced by the Division and 49 documentary films and 71 newsreels produced by the state governments From 1 April 1977 to 30 September 1977, the Division released 97 documentary films and 62 newsreels. They included 74 documentary films, 27 national newsreels and 27 regional newsreels produceds by the Division and 23 documentary films and 35 newsreels produced by the state governments

During 1976-77 the Division participated in 35 international festivals and won six awards and from 1 April 1977 to 30 September 1977 it participated in 20 international festivals and won two awards. The

films which received Major festival awards were : (i) Induced Breeding (ii) Jatra (iii) Advantage Amritraj (iv) King of Games (v) It is all Water (vi) After the Silence (vii) Engineer Kisan (viii) Destination Bombay.

Censorship

Film can be exhibited in India only after they have been certified by the Central Board of Film Censors. The Board, set up under the Cinematograph (Censorship) Act of 1952, consists of nine members and a Chairman, all of whom are appointed by the Government of India. The headquarters of the Board is at Bombay with regional offices at Bombay, Calcutta and Madras. The regional offices are assisted in the examination of films by advisory panels, the members of which are appointed by the government and include educationists, lawyers, social workers and others.

The Board examines the films and grants a 'U' certificate for unrestricted public exhibition or an 'A' certificate for exhibition restricted to adults (above the age of 18 years). The Board may direct the applicant to carry out excisions or modifications before granting the certificate It may also refuse the certificate if the film or any part of it is against the interest of the security of the State, friendly relations with foreign states, public order, decency, morality or involves defamation or contempt of court or is likely to incite the commission of an offence Whenever any deletions are ordered, their particulars are notified in the Gazette of India. The applicant can appeal to the Government of India within 30 days of an order of the Board. The Board has taken steps to curb depiction of violence and vulgarity in films

In 1976 the Board granted 'U' certificates to 1,688 Indian and 1,177 foreign films 'A' certificates were granted to 38 foreign and 29 Indian films. 24 foreign feature films and 23 Indian feature films were refused certificates. Besides, 1,027 films were classified as predominantly educational. From January 1977 to September 1977 the Board granted 'U' certificates to 1,226 Indian and 925 foreign films. 'A' certificates were granted to 59 foreign films and 18 Indian films. Seventeen foreign feature films and two Indian feature films were refused certificates. Besides 625 films were classified as "predominantly educational.

Exhibition Facilities

There has been a steady growth of exhibition facilities for showing films in the country. Table 10 13 gives the number of cinemas in 1965-66 and from 1971-72 to 1975-76.

TABLE 10.13 NUMBER OF CINEMAS

| Cinemas | 1965-66 | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 |
|---|---|---|---|---|---|---|
| Permanent | 3,808 | 4,590 | 4,787 | 5,304 | 5,474 | 5,650 |
| Touring | 1,639 | 2,711 | 2,801 | 2,932 | 3,266 | 3,367 |
| TOTAL | 5,447 | 7,301 | 7,588 | 8,236 | 8,740 | 9,017 |

Film Finance Corporation

The Government of India set up the Film Finance Corporation in March 1960 with the objective of raising the standard of films in the country and helping the development of Indian cinema in all possible ways For achieving this objective, the Corporation advances finance

for the productions of quality films, channelises all raw stock required for the film industry, imports films from international market and sponsor film festivals.

During 1976-77, the Corporation financed two feature films and in the first six months of 1977-78 six feature films. The Corporation's success in meeting its objective of promoting good cinema can be gauged from the fact that FFC films continue to represent the country in International film festivals and its films are selected by many countries for participation in India film weeks.

In order to avoid wastage and to ensure the best possible use of imported raw stock all these are channelised through FFC. The Corporation also issues permits for rupee currency area raw stock.

The work of channelising the export of Indian films has been transferred to the Indian Motion Picture Export Corporation by the FFC from February 1977. So far as imports of films are concerned the Corporation's policy is to get as wide a cross-section as possible from the international market. Thus, films are imported from the cinematically developed as well as from the Third World countries. In order to benefit film makers and audiences by exposing them to the best of world cinema classical films are imported specially for the non-commercial circuit. All the films imported are distributed directly by the Corporation for exhibition.

During 1977, besides sponsoring the Sixth International Film Festival of India at New Delhi, the Corporation also organised film weeks of French, Australian, Vietnamese and Japanese films in the country. FFC also sponsored an International Film Festival in January 1978 at Madras.

**Children's Film Society**

Films for the children are produced mainly by the Children's Film Society. It was set up in May 1955 as an autonomous body, registered under the Societies Registration Act, 1860, to undertake, aid, sponsor, promote and co-ordinate the production, distribution and exhibition of films suited for children and adolescents In the last 22 years, it has produced and acquired 183 features and shorts which include live action films, puppet films and cartoons. Of these, 12 films have won national and international awards The expenditure of the Society is largely met from grants-in-aid given by the Central Government though it also earns revenue through affiliate membership fee realised from the state governments and union territories, sale of prints, commercial film shows and hire charges of 16-mm films, and 35 mm films and projectors and studio equipments

The films of the Society are regularly shown at Bombay, New Delhi and many other cities and towns. Many schools, social welfare centres and industrial establishments are the members of the Society and regularly borrow films from the 16-mm library of the Society for screening at their premises for the benefit of children In 1975, the Society organised a festival of films acquired from Children's Film Foundation, London in Bangalore, Bombay, Calcutta, Delhi and Madras In addition, festivals were also held in Jaipur and Lucknow. During 1977, the Society participated in international film festivals held in Moscow, Tehran and Denmark.

**DIRECTORATE OF FILM FESTIVALS**

The Directorate of Film Festivals, set up by the Ministry of Information and Broadcasting in May 1973, implements the scheme of National Film Festival and regulates India's participation in inter-

national film festivals. It also organises festivals of foreign films in India and of Indian films abroad under bilateral cultural exchange programmes. It also organise International Film Festival of India and other film expositions.

National Film Festival

Instituted in 1953, the scheme of National Film Festival (earlier called national awards for films) aims at promoting India's film art by acknowledging outstanding achievements in different departments of film making. These annual awards are now given under a new National award scheme. Kamal (lotus) is the symbol as adopted under this new scheme which came into effect in 1975. 'Kamal Puraskars' (lotus awards) have replaced the earlier President's medals. The awards consist of the Gold Lotus, the Silver Lotus and the Bronze Lotus. While the first two are for different categories of films, the Bronze Lotus is given to the leading actor and actress of the award winning films

The Dadasaheb Phalke Award is decided by the Government of India and entries for the National Film Festival are examined by the two national juries—one for the short films and the other for the feature films For the twenty-fourth National Film Festival entries of 68 feature films and 62 short films were received In all, 38 awards were recommended for excellence in various fields of cinema. 'Mrigayaa' (Hindi) was adjudged the Best National Film and awarded Swarna Kamal (Gold Lotus). 'Pallavi' (Kannada) was adjudged as the second best feature film and awarded Rajat Kamal (Silver Lotus). Shri Mithun Chakraborthy won the best actor's award for his role in the film 'Mrigayaa'. Smt Lakshmi won the best actress award for her role in the film 'Sila Nerangalil Sila Manithargal' (Tamil). The Dada Saheb Phalke Award for outstanding contribution to the cause of Indian Cinema was won by Smt Kanan Devi

The scheme now covers 27 categories consisting of all-India and regional awards. The regional awards are meant for films produced in the principal languages of the country.

India's Participation in Film Festivals

India participated in 41 international film festivals between March 1977 to January 1978 The major international film festivals in which India participated were Moscow Film Festival, London Film Festival, Melbourne Film Festival, Thessalonki Film Festival in Greece, The World Film Festival at Montreal in Canada, New York Film Festival and Chicago International Film Festival In addition a Panorama of India films was held in Paris on the occasion of the Third International Film Festival of Paris at which seven Indian feature films were screened A large number of documentaries participated in major short film festivals such as Zaragoze, Oberhausen, Cracow, Leipzig and the Agriculture film competition at Berlin Children Films were sent to Tehran International Film Festival for Children and Young Adults and Fairytale Film Festivals in Denmark India also participated in specialised film festivals such as the Sixth International Festival of Films on Road Safety at Zagreb, Fourth Budapest International Sports Film Festival in Hungary, Eighth International Military Films in Paris and International Animated Film Festival, Annecy

The Indian feature film entry to the second Cairo International Film Festival 'Swamy' was awarded the Afro-Asian Solidarity Prize The film also won the 'Best Story Award' at the Twenty-Third Asian

Film Festival (Bangkok). 'Nishant' (Hindi) got the Copper Plaque at the Chicago Film Festival.

International Film Festivals in India

The Sixth International Film Festival of India was held in New Delhi from 3-16 January 1977. In this festival, 53 countries participated with over 249 feature films and short films in the competition and information section. Twentyfive feature films and 15 short films were approved for the Competition section of the festival. The festival, sponsored by the Film Finance Corporation, was organised by the Directorate of Film Festivals in collaboration with the Indian Motion Pictures Export Corporation and in close cooperation with the Indian Film Industry.

The festival is recognised as 'A' grade by the Federation of International Film Producers Association. It has the distinction of joining the six top ranking festivals of the world, the other five being Cannes, Berlin, San Sabastian, Tehran and Karlovy Vary (alternating with Moscow).

The film market section at the festival set up by the Indian Motion Picture Export Corporation, transacted deals worth Rs 1.20 crores for films and Rs 70 lakhs for equipment.

Other Film Festivals

During 1977, festivals of films from USSR, Algeria, Socialist Republic of Vietnam and Japan were held in India. The USSR festival was organised to celebrate the 60th Anniversary of the Great October Socialist Revolution. The Algerian festival was held in April 1977. All these festivals were arranged under the cultural exchange programmes and bilateral adhoc arrangements with the respective countries. Festivals of Indian films were held in Romania in June/July 1977 and in USSR in September 1977. A package of Indian films was shown in Chile, Peru, Bolivia and Argentina.

National Film Archive of India

The National Film Archive of India was established in 1964 with the primary objective of acquisition and preservation of national and international cinema, film classification, documentation and research and encouraging film study and spread of film culture Its collection as on 31 October 1977 totalled 1,729 titles consisting of 1,102 Indian and 717 foreign films It also has ancillary film material of 7,006 books, 182 periodicals, 1082 gramophone dics, 12,666 photographic stills, 2,569 wall posters, 2,151 song booklets, 7,309 shooting scripts and 1,946 pamphlets and folders.

Important Indian films acquired during 1976-77 include "Durga" (1939), "Sanjog" (1943), "Sonar Kella", "Jana Aranya", "Chorus", "Chommanna Dudi" (Kannada), "Nishant", "Mausam" (Hindi), "Abachurina Post Office" (Kannada), "Hamsa Geethe" (Kannada), and "Swapnadanam" (Malayalam).

The Archive is a member of the International Federation of Film Archives. This enables the NFAI to acquire foreign films at nominal print cost or exchange films with the foreign archives Among foreign films, the recent additions were—Ingmar Bergman's "Illicit Interlude", "Smiles of a Summer Night" and "Summer with Monika", Charles Chaplin's "The Great Dictator", "City Lights", and "Monsieur Verxoux", Alfred Hitchcock's "Suspicion" and "Strangers on a Train", Werner Herzog's "Aguirre—the Wrath of God", Sidney Lumets "Twelve Angry Men", Merian-C-Cooper's "King Kong" (1933), two films from the Third World—"To the people of the World" (Chile)

and "The Principal Enemy" (Bolivia), and about six contemporary Japanese films including the major works of Akira Kurosawa and Nagisa Oshima.

A monograph on Bimal Roy, the third in the series of films pioneers, is under preparation.

As part of the screen education activities, the Archive conducts refresher courses in film appreciation at Pune and other centres in collaboration with universities and Film Study Groups. It also holds regular weekly screenings at Pune and Bombay for interested public.

The Archive maintains a distribution library of about 100 films (both Indian and Foreign) which are loaned to film societies and film study groups throughout the country, for non-commercial study screenings.

Exports

Indian films are exported to nearly 90 countries in the world. The traditional markets are the Gulf countries, Canada, East Africa, Fiji, Indonesia, Iran, Malaysia, Mauritius, Singapore, Sri Lanka, Thailand, UK, USA, West and North Africa and West Indies Among the non-traditional markets, USSR has emerged as an important buyer. The demand is mainly for Hindi and Tamil films During 1974-75, export earnings amounted to Rs five crores

Export was previously undertaken by merchant-exporters and producer-exporters. In the public sector, the Indian Motion Pictures Export Corporation was set up in September 1963 with a share capital of Rs 25 lakhs subscribed both by the industry and the government. IMPEC became a subsidiary of the State Trading Corporation of India in April 1967 and was placed under the control of the Ministry of Information and Broadcasting in October 1973. The export of feature films was canalised through the State Trading Corporation in August 1972 and through the Film Finance Corporation in October 1973. The IMPEC was entrusted with canalising the export of Indian films from 1 January 1975 by the Film Finance Corporation.

Cine Film and Equipment

Cinematographic film and equipment are produced indigenously and also imported to meet the requirements of the film industry. The imports were valued at Rs 6 27 crores in 1976-77. Table 10.14 shows the quantity and value of imports for the last seven years.

TABLE 10 14
CINE FILM AND EQUIPMEMT IMPORTS

| Year | Unexpected sensitized film in rolls | | Exposed cine film (Whether developed or not) | | Sound recording equipment | Projection equipment[1] |
|---|---|---|---|---|---|---|
| | Quantity (lakh metres) | Value (Rs lakhs) | Quantity (lakh metres) | Value (Rs lakhs) | Value (Rs lakhs) | Value (Rs lakhs) |
| 1970-71 | 777·86 | 532 59 | 23 30 | 1 91 | 175·39 | 36 68 |
| 1971-72 | 911 84 | 638 69 | 15·19 | 2 03 | 34 77 | 25·57 |
| 1972-73 | 831 45 | 641 08 | 23 57 | 2·87 | 56·56 | 29 37 |
| 1973-74 | 686 45 | 627 41 | 11 44 | 8 43 | 45·82 | 18 37 |
| 1974-75 | 613·89 | 630·75 | 11·61 | 4 23 | 51·42 | 23·37 |
| 1975-76 | 332 49 | 577 03 | 55 98 | 3 92 | 48·09 | 186 59 |
| 1976-77 | 218·44 | 468 33 | 32·15 | 1.21 | 74·09 | 83·76 |

[1]Includes value of parts and accessories of cine cameras, projectors etc , for which separate figures are not available

## PUBLICATIONS

Publications Division

The Publications Division of the Ministry of Information and Broadcasting was set up in 1941 as the foreign branch of the Bureau of Public Information. It acquired its present name and separate identity in 1944. It produces books, pamphlets, pictorial albums and journals in Hindi, English and major regional languages with the main objective of educating and informing the public through the print media. Till the end of August 1977, it had brought out 5,040 books and sold publications worth over Rs five crores. These books cover a wide spectrum of national life and endeavour.

Besides publications on art and culture, history and tradition, political evolution and democratic processes, economic development and social resurgence, the Division also brings out books on science and technology. Under its 'Builders of Modern India' series the Division has released biographies of eminent Indians who have made valuable contribution to national renaissance Under the 'States of Our Union' series, which seeks to introduce the people of each state to the others, 20 titles have been published The Division's books on art and culture include the "Wall Paintings of Western Himalayas', 'Heritage of Indian Art' and 'An Introduction to Indian Music'. Selected speeches and writings of Presidents, Vice-Presidents and Prime Ministers have also been published

The Division brings out 17 journals of varying periodicity. 'Yojana', a journal devoted to planning, is brought out in Assamese, Bengali, English, Gujarati, Hindi, Malayalam, Marathi, Tamil and Telugu 'Bal Bharati' (Hindi) is produced for children while 'Ajkal' (Hindi and Urdu) serves the cultural needs of adult readers. Other journals include the 'Indian and Foreign Review' and 'Kurukshetra'.

The books and journals are sold through a net work of over 3,000 booksellers and the Division's own sales emporia. As a plan scheme, the Division has undertaken to make available to the public, under one roof, all the publications brought out by the Division, Ministries, and Departments of the Government of India, State Governments and other Government agencies The Division has sales emporia in New Delhi, Calcutta and Bombay and a sales unit in Madras. Two more sales emporia are expected to be set up at Patna and Trivandrum

During 1976-77, the Division sold publications worth Rs 92.51 lakhs as against Rs 89.16 lakhs during 1975-76 The figures include exports worth Rs 2 40 lakhs and Rs 2 19 lakhs respectively. The Division has won seven national awards for excellence in printing and designing

## ADVERTISING AND VISUAL PUBLICITY

Directorate of Advertising and Visual Publicity

The Directorate of Advertising and Visual Publicity is the central agency of the Government of India for undertaking mass advertising and visual publicity campaigns on behalf of the various ministries, departments and autonomous bodies under the government through press advertisement, printed publicity material like posters, folders, leaflets, brochures and booklets, outdoor publicity items like hoardings, panels, cinema slides, metallic tablets and radio 'spots' and sponsored programmes. Policies and programmes of the government are also publicised through photographic exhibitions Radio advertising for the nationalised banks is also undertaken by the DAVP. The Directorate had 37 field exhibition units in 1976, most of them at state capitals, including mobile vans and exhibition coaches. The

number of exhibitions organised in 1975 and 1976 was 1,002 and 1,590 respectively. In 1977, 1,187 exhibitions were organised up to 30 September 1977. A special exhibition called 'Triumph of Freedom' was put up immediately after the General Elections in March 1977. On the occasion of the Silver jubilee celebrations of the Rajya Sabha the Directorate organised an exhibition called 'Parliament through the years".

The multi-media national campaigns of the Directorate are launched to inform and educate the people on matters of immediate and long-term interest. Major campaigns aimed at educating the people about democracy, to popularise handlooms, to project agro-economic development of the country, to publicise the new integrated health and family welfare schemes, to encourage people to grow more food and to save grain were taken up. Other campaigns aimed at mobilisation of savings, popularisation of handicrafts and the use of standard weights and measures The Directorate plans to launch major campaigns for enforcing prohibition and eradicating untouchability.

*Employment News*

To help young qualified persons to get information about job opportunities available in Central government, public sector undertakings, autonomous bodies etc, from a single source, DAVP started the weekly journals 'Employment News' (English) and 'Rozgar Samachar' (Hindi). The first issue was released on 29 March 1976 Later Urdu, Bengali, Assamese, Tamil and Telugu editions were added.

*Government Advertisements*

Advertisements of all the ministries and departments of the Government of India, excluding railway, are released to the press by the DAVP. While selecting newspaper for these advertisments, special consideration is given to medium and small newspapers. To qualify for government advertisements, a newspaper must have regular periodicity, uninterrupted publication for six months and a paid circulation of not less than 1,000 copies. It is also required to maintain accepted standards of production and journalistic ethics.

*Awards for Printing and Designing*

The Directorate organises every year the 'National Awards for Excellence in Printing and Designing', in order to generate healthy competitive endeavours for higher standards in printing and layout In the Eighteenth Awards, announced in 1976, in all, 404 awards were given to 208 winners under 44 categories. The Nineteeth Awards were announced in 1977 and a total of 1,124 awards were given to 480 winners under 69 categories

## FIELD PUBLICITY

The Directorate of Field Publicity, set up in 1953, reaches the people through its 221 field units and 17 regional offices and seeks public support for national campaigns on planned development, family welfare, national integration and defence preparedness. Publicity against social evils like drinking, dowry, adulteration etc are also done by the Directorate The mobile units organise film shows, photo-exhibitions, song and drama programmes including 'harikathas' and 'qawalis' and distribute publicity literature Oral communication. like seminars, symposia, group discussions and debates also form an important part of the field programmes organised by the units.

Extension of publicity work into the remote and hilly border areas, rarely covered, receive special attention in field publicity programmes. The units reach such areas even through foot marches, transporting the equipment manually. Various mass media techniques are adopted keeping in view the special requirements of the region to convey to the people the massage so as to involve them in the developmental process. Selected opinion leaders from border and tribal areas are taken on conducted tours to centres of developmental and cultural interest with this objective in view and by way of promoting national integration.

The Directorate gathers public reaction to government policies and programmes and feed back reports are sent to the government. Success stories about people's participation in development programmes are reported to the various mass media units.

## EXTERNAL PUBLICITY

The External Publicity Division of the Ministry of External Affairs explains and interprets the policies of the Government of India to foreign audiences. It supplies publicity material to Indian Missions abroad for distribution. For quick transmission of developments at home, it maintains teleprinter link with several Indian Missions abroad, while material received from them is issued to the Indian press. Under the cultural exchange programmes, Indian journalists are sent abroad, while foreign journalists are provided with facilities in India. In 1976, 79 Indian journalists were assisted in going abroad while 171 foreign journalists and 79 television teams from abroad who came to India were given assistance.

## PHOTO DIVISION

The Photo Division of the Ministry of Information and Broadcasting caters to the requirements of Photographs for internal and external publicity. Its main function is to photographically document the growth and social change taking place in the country and provide visual support required in the activities of the other media units of the Ministry. Photographs are also supplied to other Ministries and government departments and the members of the public on payment

The Division maintains a library of photographic negatives (more than three lakhs in number) of great archival and historical importance pertaining to national and international events since independence and photographs of the country, its landscape and people taken over the years. The legend and reference of these negatives are maintained in a separate photo library under the Press Information Bureau.

The main office of the Photo Division is located in Delhi. It has regional offices at Madras, Calcutta and Bombay.

The Division has well equipped dark room facilities and sophisticated cameras. In addition, it has a special colour laboratory with automatic processing and printing machines.

## SONG AND DRAMA

The Song and Drama Division of the Ministry of Information and Broadcasting, established in 1954, has become the biggest live-entertainment organisation. Through its six departmental drama troupes, 28 troupes on the international border and nine troupes of the Armed Forces Entertaintment Wing, the Division presents various types of programmes for the masses, which include both rural and urban

people, tribal people in interior-most areas and especially the armed forces personnel posted in forward areas. The programmes create an awareness of the social, economic and democratic ideals cherished by the nation. In addition to these troupes, private parties/artistes, registered by the Division from all over India, conduct different types of programmes through the Division's regional centres and the offices of the Directorate of Field Publicity.

In 1969, the Division created Theatre Panosonic—a sound and light spectacle with live action by a large number of artistes, which can be witnessed from different angles by thousands of people at a time. The success of the programmes produced in this medium had prompted the Government to create a special Sound and Light Wing in the Division as part of the Fifth Five Year Plan. The Division has presented lives of great poets, viz., Subramania Bharati, Amir Khusro, Vidyapati and the epic story of Ram Charit Manas in this medium. Apart from the programmes depicting the policies and priorities of the Government, the Division has presented ballet on the life of Vivekananda. The Division has a proposal to stage plays from the National and International repertoire.

A new programme of screening popular feature films at nominal rates in the prestigious open air theatre Rabindra Rangashala, in New Delhi, was started in 1974. This is a pioneering step in the open air cinema movement in the country for providing healthy entertainment to the people

## RESEARCH AND REFERENCE

The Research and Reference Division of the Ministry of Information and Broadcasting collects basic information on various subjects, studies in depth problems of national significance and provides reference service to the media units of the Ministry of Information and Broadcasting and others. The Division also provides UNESCO and other well known international reference publications information about India. Besides, it studies trends in the mass communication media. The Division's regular services include 'Background to the News' and research papers on matters of topical interest. The Division also compiles 'India-A Reference Annual' which is a standard work of reference and provides objective and authentic information on diverse aspects of national life and activities in India.

A National Documentation Centre on Mass Communication has been set up as part of the Research and Reference Division with the broad objective of collecting and disseminating information relating to mass communication studies and problems This Centre provides documentation services on the different media of mass communication—press, films, broadcasting and audio-visual publicity. A Mass Communication Annual to provide basic and up-to-date information and statistics on different media of mass communication in the country is being brought out from 1977.

During 1977, the Division brought out more than 160 backgrounders and research and reference papers on various subjects The Documentation Centre brought out 35 papers under its various services like Bibliography Service, Reference Information Service etc.

## MASS COMMUNICATION TRAINING

Training in mass communication subjects is given by a number of institutions in the country. Among the Universities which offer degree/

diploma courses in journalism are the Universities of Banaras, Behrampur, Calcutta, Gauhati, Jabalpur, Madras, Marathwada, Mysore, Nagpur, Osmania, Pune, Punjab, Punjabi, Ravishankar and Shivaji The Punjab Agricultural University at Ludhiana has M.Sc. course in journalism for science graduates and Bangalore University has B. Sc. and M.Sc courses in communication.

**Staff Training (Programmes)**

The Staff Training Institute (Programmes) of All India Radio imparts training to members of its staff in the planning and production of all types of programmes—like spokenword, drama, music, radio reports, farm broadcasting, educational programmes etc. Training is also given in programme administration, audience research and allied topics. The Institute at Delhi has two Regional Training Centres at Hyderabad and Shillong.

The training programme comprises 13-week basic courses as well as short workshop courses and seminars. Experts in different fields, inside as well as outside the department, are invited to speak to the trainees and initiate discussions Foreign trainees deputed by broadcasting organisations, also benefit from these programmes.

**Staff training (Technical)**

Staff Training Institute (Technical) has the responsibility of maintenance training of engineers of All India Radio and Television The Institute runs a basic orientation course and an induction course for the in-service personnel and also conducts specialised courses on various subjects like tape recording, frequency modulation, semiconductor technology, Digital technology and T.V. receiver maintenance Trainees from foreign countries are accommodated to these courses under the Colombo Plan and other programmes.

**Film and Television Training**

The Film and Television Institute of India set up at Pune in 1960 by the Ministry of Information and Broadcasting offers training in the art and craft of TV and film making. The FTII became an autonomous body in October 1974.

The Institute at present offers diploma courses of three year duration in editing and motion picture photography and of one year duration in sound engineering. Television training has so far been an in-service training for Doordarshan employees.

**Indian Institute of Mass Communication**

The Indian Institute of Mass Communication was set up by the Ministry of Information and Broadcasting in August 1965 as a centre for advance study and research in mass communication. It was made autonomous in January 1966 The Institute's responsibilities are in the fields of research, training and development of mass communication media Its activities cover developmental journalism, the print media, visuals and films, radio and television, oral communication, traditional media, advertising, campaign planning and communication research

The regular training courses offered at this Institute are . (i) nine month post-graduate diploma course in journalism for foreign scholars with journalistic background from developing countries as well as Indian aspirants, who seek to make it their career; and (ii) six-week refresher course (six in a year) for intermediate level personnel of the central and state information, publicity and public relations departments and public undertakings Other training assignments undertaken include re-orientation courses for field publicity officers at regio-

nal centres, workshop-oriented specialised courses in language journalism, photography and puppetry for mass communication and radio newswriting

In addition to training courses, the Institute convenes, or collaborates with other institutions in organising, seminars in which media practitioners discuss the challanges they face in the context of the social responsibility of the media A seminar on "documentary films as a medium for motivation-improvement in techniques and contents" was organised jointly with Films Division at Bombay in June 1976 and a seminar with international participation on the two themes of "film-maker's purpose . personal cinema or social relevance ?" and "film making as a co-operative enterprise—the challenge of costs" was organised in collaboration with the Directorate of Film Festivals during the Sixth International Film Festival in January 1977. A seminar of heads of journalism departments of universities was conducted by the Institute to consider the problems of curriculum improvement, arrangements for practical training and other aspects of professional work

The Institute also endeavours to keep abreast of communication processes and undertakes studies of media activities and habits as well as information needs. The integrated use of traditional and electronic media for family welfare communication as also the reach, impact, costs and timings of media campaigns are studied. Increasingly the Institute's training and research programmes have been oriented to meet the requirements of areas which have special communication problems.

## EVALUATION

A Directorate of Evaluation has been set up under the Ministry of Information and Broadcasting to study the relative reach, cost and impact of the various media and to conduct surveys aimed at providing information necessary for programme improvement, policy planning and better cost-effectiveness A Department of Evaluation Studies in the Indian Institute of Mass Communication, headed by a visiting professor, serves as a base for initiating, coordinating, and conducting evaluation studies of both immediate consequence and long-range interest to the Ministry of Information and Broadcasting as well as to other Ministries of the Government of India in the areas of media planning, campaign formulation and evaluation.

## WHITE PAPER ON MISUSE OF MASS MEDIA

With the proclamation of internal emergency on 25 June 1975, the then Government and in particular the Ministry of Information and Broadcasting took several measures to tighten the hold on the official media and control independent media like newspapers and films by using emergency powers at its disposal. The new Government on 21 May 1977 appointed a one-member Enquiry Committee under the Chairmanship of Shri K K Dass to go through the several complaints regarding the misuse of official mass media by the then Government during the operation of internal emergency.

The Committee received 1.037 complaints of which 820 were outside its scope Of the remaining 217 complaints, 103 were from journalists including editors pertaining mainly to harassment. Other

TABLE 11·2

NATIONAL INCOME AND SOME RELATED AGGREGATES

(Rs crores)

| Item | 1960-61 | 1970-71[1] | 1972-73[1] | 1973-74[1] | 1974-75[1] |
|---|---|---|---|---|---|
| (a) Gross national product at factor cost | 13,999 | 36,568 | 42,136 | 52,195 | 61,551 |
| (b) Add indirect taxes less subsidies | 947 | 3,523 | 4,599 | 5,159 | 6,558 |
| (c) Gross national product at market prices (a+b) | 14,946 | 40,091 | 46,735 | 57,354 | 68,109 |
| (d) less consumption of fixed capital | 736 | 2,106 | 2,493 | 2,799 | 3,414 |
| (e) Net national product at market prices (c—d) | 14,210 | 37,985 | 44,242 | 54,555 | 64,695 |
| (f) less net factor income from abroad | (—)72 | (—)284 | (—)302 | (—)324 | (—)348 |
| (g) Net domestic product at market prices (e—f) | 14,282 | 38,269 | 44,544 | 54,879 | 65,043 |
| (h) Net domestic product at factor cost | 13,335 | 34,746 | 39,945 | 49,720 | 58,485 |
| (i) Less income from domestic product accruing to general government[2] | 187 | 592 | 661 | 564 | 636 |
| (j) Less saving of non-departmental enterprises | 11 | 81 | 94 | 168 | 392 |
| (k) Income from domestic product accruing to private sector (h-i-j) | 13,137 | 34,073 | 39,190 | 48,988 | 57,457 |
| (l) Add national debt interest | 59 | 244 | 363 | 507 | 613 |
| (m) Add net factor income from abroad | (—)72 | (—)284 | (—)302 | (—)324 | (—)348 |
| (n) Add transfer payments | 166 | 577 | 943 | 908 | 1,149 |
| (o) Add other current transfers from the rest of the world (net) | 28 | 123 | 154 | 192 | 216 |
| (p) Private income (k+l+m+n+o) | 13,318 | 34,733 | 40,348 | 50,266 | 59,087 |
| (q) Less saving of private corporate sector | 117 | 210 | 251 | 489 | 843 |
| (r) Less corporation tax | 111 | 370 | 558 | 583 | 710 |
| (s) Personal income (p-q-r) | 13,090 | 34,153 | 39,539 | 49,194 | 57,534 |
| (t) Less direct taxes paid by household | 309 | 721 | 912 | 1,070 | 1,257 |
| (u) Less fees, fines[3] etc. | 61 | 162 | 146 | 150 | 196 |
| (v) Personal disposable income (s-t-u) | 12,720 | 33,270 | 38,481 | 47,974 | 56,081 |

[1]Provisional

[2]Administrative departments and departmental enterprises

[3]Available data do not permit separation of fees, fines, etc. paid by producers and to that extent personal disposable income is under-estimated.

## TABLE 11 3

### PERFORMANCE OF PUBLIC SECTOR (AT CURRENT PRICES)

(Rs crores)

| Item | 1960-61 | 1971-72[1] | 1973-74[1] | 1974-75[1] | 1975-76[2] |
|---|---|---|---|---|---|
| Net domestic product | 13,335 | 36,623 | 49,720 | 58,485 | 60,672 |
| Public | 1,422 | 5,688 | 7,217 | 9,063 | 10,403 |
| private | 11,913 | 30,935 | 42,503 | 49,422 | 50,269 |
| share of public to total | 10 7 | 15·5 | 14 5 | 15 5 | 17 7 |
| Net domestic saving | 1,327 | 4,546 | 6,764 | 8,500 | 10,013 |
| public | 309 | 800 | 1,158 | 1,989 | 2,174 |
| private | 1,018 | 3,745 | 5,606 | 6,511 | 7,839 |
| share of public to total | 23·3 | 17 6 | 17 1 | 23 4 | 21 4 |
| Net domestic capital formation | 1,808 | 5,025 | 7,156 | 9,576 | 11,058 |
| public | 1,021 | 2,706 | 4,062 | 4,771 | 6,489 |
| private | 787 | 2,319 | 3,094 | 4,805 | 4,569 |
| share of public to total | 56 5 | 53 9 | 56 8 | 49 8 | 58 7 |
| Final consumption expenditure | 13,054 | 37,207 | 48,560 | 58,756 | 62,365 |
| public administration | 1,086 | 4,432 | 5,057 | 5,979 | 6,827 |
| private household and non-profit institutions | 11,968 | 32,775 | 43,503 | 53,777 | 55,538 |
| share of public to total | 8·3 | 11 9 | 10 4 | 10 0 | 10 9 |

[1]Provisional
[2]Quick estimates

## TABLE 11 4

### PRIVATE CONSUMPTION, SAVINGS AND CAPITAL FORMATION

| Year | Private final consumption expenditure (Rs crores) | | Per capita private final consumption expenditure (Rs) | | Net domestic savings (Rs crores) at curent prices | Rate of savings (Per cent) | Net domestic capital for mation (Rs crores) | | Rate of capital formation at current prices (Per cent) |
|---|---|---|---|---|---|---|---|---|---|
| | at current prices | at 1960-61 prices | at current prices | at 1960-61 prices | | | at current prices | at 1960-61 prices | |
| 1960-61[1] | 11,968 | 11,968 | 275 8 | 275 8 | 1,327 | 9 3 | 1,808 | 1,808 | 12 7 |
| 1970-71[1] | 30,552 | 16,988 | 564 7 | 314 0 | 4,499 | 11.8 | 4,893 | 2,838 | 12 8 |
| 1972-73[1] | 35 603 | 17,081 | 630 1 | 302 3 | 5,530 | 12 4 | 5,827 | 3,044 | 13 1 |
| 1973-74[1] | 43,503 | 18,043 | 754 0 | 312 7 | 6,764 | 12 3 | 7,156 | 3,278 | 13 0 |
| 1974-75[1] | 53,777 | 17,700 | 914 6 | 301 0 | 8,500 | 13.1 | 9,576 | 3,398 | 14 7 |
| 1975-76[2] | 55,538 | 19,245 | 925 6 | 320 7 | 10,013 | 14.7 | 11,058 | 3,618 | 16 2 |

[1]Provisional
[2]Quick Estimates.

**TABLE 11.5 DISTRIBUTION OF FACTOR INCOMES AT CURRENT PRICES**

(Rs crores)

| | 1960-61 | 1970-71[1] | 1972-73[1] | 1973-74[1] | 1974-75[1] |
|---|---|---|---|---|---|
| Compensation of employees | 4,497 | 12,234 | 14,243 | 16,430 | 19,277 |
| Interest . . . | 425 | 1,709 | 2,074 | 2,270 | 2,633 |
| Rent . . | 692 | 1,402 | 1,795 | 1,916 | 1,914 |
| Profits and dividends | 893 | 1,721 | 1,963 | 2,286 | 3,142 |
| Mixed income of self-employed[2] . | 6,828 | 17,680 | 19,870 | 26,818 | 31,519 |
| Net domestic product . | 13,335 | 34,746 | 39,945 | 49,720 | 58,485 |

[1] Provisional

[2] Income of own account workers and profits and dividends of unincorporated enterprises

## EMPLOYMENT AND UNEMPLOYMENT

For 1971 census, the population was divided into workers and non-workers There were nine categories of workers, *viz.,* (i) cultivators, (ii) agricultural labourers, (iii) livestock, forestry, fishing, etc., (iv) mining and quarrying, (v) manufacturing, processing, etc., (vi) construction, (vii) trade and commerce, (viii) transport, storage and communications, and (ix) other services. Non-workers were divided into the following seven categories; (i) those engaged in household duties, (ii) students, (iii) retired persons or rentiers, (iv) dependants, (v) beggars, (vi) those living in institutions, and (vii) other non-workers Table 11 6 shows the number of workers and non-workers in rural and urban areas.

**TABLE 11.6 POPULATION, WORKERS BY CATEGORIES AND NON-WORKERS**

(in crores)

| | Rural | Urban | Total |
|---|---|---|---|
| Total population | 43.88 | 10.91 | 54.79 |
| Workers | 14.84 | 3.20 | 18.04 |
| (i) cultivators | 7.65 | 0.16 | 7.81 |
| (ii) agricultural labourers | 4.56 | 0.19 | 4.75 |
| (iii) livestock, forestry, fishing, etc | 0.38 | 0.06 | 0.44 |
| (iv) mining and quarrying . | 0.06 | 0.03 | 0.09 |
| (v) manufacturing processing etc | 0.82 | 0.89 | 1.71 |
| (vi) construction | 0.11 | 0.11 | 0.22 |
| (vii) trade and commerce . | 0.36 | 0.64 | 1.00 |
| (viii) transport, storage and communications | 0.12 | 0.32 | 0.44 |
| (ix) other services . . . . | 0.78 | 0.80 | 1.58 |
| Non-workers . | 29.04 | 7.71 | 36.75 |

### Employment in Organised Sector

The employment position in the entire country is not yet available for the inter-censual period. However, the data collected under Employment Market Information give an idea of employment in the organised sector covering the entire public sector and those establishments in the non-agricultural private sector employing 10 or more persons.

Employment in the organised sector at the beginning and the end of the Fourth Plan, *i e.,* on 31 March 1969, and on 31 March 1974 and 1975 has been shown in table 11.7.

The table also shows that during the Fourth Plan period 26 49 lakh more persons got employment—24.55 lakhs in the public sector and 1.94 lakhs in the private sector. During the subsequent two years, the employment in the organised sector increased by 9.28 lakhs of which public sector alone provided for 8.78 lakhs as on 31 March 1976

TABLE 11·7
EMPLOYMENT IN ORGANISED SECTOR

(in lakhs)

| | March 1969 | March 1974 | March 1975 | March 1976 |
|---|---|---|---|---|
| Public sector Central government | 27 20 | 29 39 | 29 89 | 30 47 |
| State government | 39 00 | 47 06 | 47 68 | 49 39 |
| Quasi-government | 15 80 | 29 12 | 31 92 | 33 92 |
| Local bodies | 18 30 | 19·28 | 19 41 | 19 85 |
| TOTAL | 100 30 | 124 85 | 128 90 | 133 63 |
| Private sector (non-agricultural) | | | | |
| Larger establishments (employing 25 or more workers) | 58 70 | 60 71 | 60 90 | 61 13 |
| Smaller establishments (employing 10-24 workers) | 7 30 | 7 23 | 7 09 | 7 31 |
| TOTAL | 66 00 | 67 94 | 67 99 | 68·44 |
| GRAND TOTAL | 166 30 | 192 79 | 196 89 | 202 07 |

Unemployment

A comparable series on the level of unemployment in the country is not yet available. However, the number of persons on the live register of employment exchanges gives an idea of the trend of unemployment subject to certain limitations Employment exchanges cover mainly urban areas Registration with the employment exchanges being voluntary, not all the unemployed register their names in the exchanges Further, some of the registrants are already employed but have registered for seeking better employment The number of job seekers on the live registers of employment exchanges increased from 34 23 lakhs as on 31 December 1969 to 84 33 lakhs as on 31 December 1974 Table 11 8 gvies the occupational distribution of registrants with the employment exchanges as on 31 December 1975 The number of job-seekers on the live registers shot up by 8 93 lakhs from 84 33 lakhs in 1974 to 97 84 lakhs in 1976.

TABLE 11 8
APPLICANTS ON THE LIVE REGISTER OF EMPLOYMENT EXCHANGES

| Occupational group | Number as on 31-12-76 ('000) | Percentage to total |
|---|---|---|
| Professional, technical and related workers | 560 7 | 5 7 |
| Administrative, executive and managerial workers | 8 2 | 0 1 |
| Clerical and related workers | 552 5 | 5 6 |
| Sales workers | 2 1 | — |
| Farmers, fishermen, hunters, loggers and related workers | 269 5 | 2 8 |
| Service workers | 31 4 | 0 3 |
| Production and related workers transport equipment operators and labourers | 1,014 | 10 4 |
| Workers not classified by occupations | | |
| (a) Below Matric (including illiterates and others) | 3,166 2 | 32 4 |
| (b) Matric and above but below graduates | 3,382 4 | 34 6 |
| (c) Graduates and above | 797 2 | 8 1 |
| TOTAL | 9,784 3 | 100 0 |

Notes The revised National Classification of Occupations (NCO 1968) was introduced with effect from June 1974

NATIONAL SAMPLE SURVEY ORGANISATION

The National Sample Survey (NSS) was set up in 1950 with the aim of obtaining comprehensive and continuing information relating to social, economic, demographic, industrial and agricultural statistics through sample surveys on a countrywide basis In 1970, a National Sample Survey Organisation (NSSO) was created and the National Sample Survey was made a part of the new organisation The NSSO

has four divisions, namely, (i) Survey, Design and Research, (ii) Field Operations, (iii) Data Processing, and (iv) Economic Analysis to conduct its sampling enquiries. The activities of the NSSO are governed by a governing Council, Five Zonal Training Centres have been set up for imparting training to the technical staff of the field operation Divisions. The entire staff is expected to be trained within the next two years.

The activities of the NSSO cover the fields of socio-economic, industrial and agricultural statistics. The socio-economic surveys are carried out annually on different subjects in collaboration with the State Statistical Bureaus (SSBs). Of the total all-India sample of 19,000 villages and 20,000 urban blocks, one half of the sample is canvassed by NSSO staff and the other half by the SSBs. Industrial statistics are obtained through Annual Survey of Industries conducted under the Collection of Statistics Act, 1953 The field work of the survey which involves collection of returns from about 40,000 factories, is carried out by the Field Operation Division and processing of the data is done in the Central Statistical Organisation. In the field of agricultural statistics, the NSSO provides technical guidance to the states for the conduct of crop estimation surveys.

The Programme of socio-economic data collection is done by rounds of surveys Principal subjects covered during the 31 Round were: Performance of irrigation projects, electrification in rural areas and economic conditions of slum dwellers of class I towns in all states and union territories. Surveys on education in urban and rural areas and Jhoom cultivation in rural areas of some North-Eastern states/union territories were also conducted

During 32 round (1977-78), the survey on consumer expenditure and employment and unemployment is being carried out in all states and union territories Intensive sample checks on the enumeration of crop area in about 9,000 villages and on 20,000 crop-cutting experiments were exercised in 1976-77 in collaboration with the State Agricultural Statistics Authorities The field work of Annual Survey of Industries (ASI) for 1975-76 has been completed. The ASI for 1976-77 started from March 1977.

**Prices**

The index numbers of wholesale prices have been revised from base 1961-62=100 to 1970-71=100 and the old series were discontinued from April 1977.

In the revised classification, commodities are distributed under three major groups, namely (i) primary articles, (ii) fuel, power light and lubricants and (iii) manufactured products.

The first group has been further divided into three sub-groups namely, (i) food articles, (ii) non-food articles and (iii) minerals The primary articles group is broadly comparable with the two groups of the old classification, viz., "Food Articles" and "Industrial raw-materials" with certain minor adjustments

The third group "manufactured products" contains sub-groups under which semi-manufactured and manufactured products have been classified. In the old classification, the group manufacturers was divided into two sub-groups "intermediate products" and "finished products".

Table 11.9 gives the index numbers of wholesale prices for the period from 1971-72 to 1976-77 and July 1976 and July 1977 with revised base 1970-71=100.

TABLE 11·9

INDEX NUMBERS OF WHOLESALE PRICES

(Base · 1970-71=100)

| | Item | Weight | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | July 1976 | July[1] 1977 |
|---|---|---|---|---|---|---|---|---|---|---|
| I. | Primary articles | 416 67 | 100 9 | 110·7 | 141·8 | 177 5 | 165 8 | 167 2 | 167 1 | 188 4 |
| | Food articles | 297·99 | 101 1 | 111 3 | 136 6 | 172 1 | 163·6 | 155·3 | 157·2 | 176 6 |
| | Non-food articles | 106 21 | 98·6 | 107 5 | 146 6 | 163·7 | 139·8 | 167 4 | 162 3 | 188 4 |
| | Fibres | 31 73 | 106 6 | 101 5 | 136·8 | 160 8 | 139·8 | 184 9 | 186 9 | 195 9 |
| | Oil seeds | 42 01 | 89 9 | 100 8 | 157 6 | 172 4 | 125 7 | 150·8 | 141·1 | 201 8 |
| | Minerals | 12 47 | 115 4 | 124·4 | 225 4 | 423·5 | 440 4 | 449 4 | 442 9 | 471 6 |
| II. | Fuel, power, Light and Lubricants | 84·59 | 105 9 | 110·1 | 130 6 | 198·3 | 219 2 | 230·8 | 230·4 | 232·4 |
| III. | Manufactured products | 498·74 | 109 5 | 121 9 | 139 5 | 168 8 | 171·2 | 175·2 | 177·4 | 181 6 |
| | Food products | 133·22 | 118 4 | 149 7 | 171 1 | 186 9 | 181 4 | 189 1 | 199 5 | 195 9 |
| | Beverages, tobacco and tobacco products | 27 08 | 106 80 | 112 4 | 122 0 | 148 2 | 164 7 | 168 2 | 170 0 | 170 5 |
| | Textiles | 110 26 | 109·6 | 112 7 | 134 8 | 159 8 | 147·3 | 155 3 | 151 6 | 171 1 |
| | Paper and Paper products | 8 51 | 110 4 | 114 3 | 129·2 | 184·8 | 183·2 | 180 1 | 178 8 | 182.4 |
| | Leather and leather products | 3·85 | 115·7 | 151 7 | 170·3 | 184 0 | 207 9 | 227 8 | 226 8 | 227 9 |
| | Rubber and rubber products | 12 07 | 101 7 | 103 7 | 105 3 | 140 0 | 156 9 | 157 2 | 157 8 | 156 7 |
| | Chemical and chemical products | 55 48 | 101·5 | 105 0 | 116·4 | 168·8 | 175 6 | 171 4 | 171 4 | 172 8 |
| | Non-metallic mineral products | 14·15 | 109·3 | 116 2 | 123·1 | 163·3 | 187 9 | 191 0 | 193 9 | 192 3 |
| | Basic metals, alloys and metal products | 59 74 | 104 7 | 113 9 | 139 0 | 172 6 | 184 8 | 190·1 | 190 5 | 193 5 |
| | Machinery and transport equipment | 67 18 | 105 3 | 112·1 | 122 7 | 156 4 | 172 6 | 170·1 | 170 9 | 171 2 |
| | Miscellaneous products | 7 20 | 102 5 | 110 2 | 119 2 | 168 5 | 167 8 | 166 0 | 165 1 | 175 0 |
| IV | All Commodities | 1,000 00 | 105·6 | 116 2 | 139 7 | 174 9 | 173·0 | 176 6 | 177 6 | 188·7 |

[1]Provisional

**Consumer Prices**

The all-India working class consumer price index on base 1949=100 has been replaced by a new series of consumer price index numbers for industrial workers on base 1960=100 with effect from August 1968 Table 11.10 shows the consumer price index numbers for industrial workers for the period 1969-70 to 1976-77 along with indices for some selected centres which are among the 50 centres covered and a weighted average of whose indices yields the All India Index

**TABLE 11.10 CONSUMER PRICE INDEX NUMBERS FOR INDUSTRIAL WORKERS**

(Base 1960=100)

| Year | Bombay | Ahmedabad | Calcutta | Madras[1] | Kanpur | Delhi | All India: All items | All India: Food |
|---|---|---|---|---|---|---|---|---|
| 1969-70 | 175 | 169 | 172 | 160 | 182 | 185 | 177 | 193 |
| 1970-71 | 182 | 176 | 182 | 170 | 190 | 199 | 186 | 204 |
| 1971-72 | 190 | 181 | 187 | 182 | 196 | 211 | 192 | 205 |
| 1972-73 | 203 | 198 | 197 | 203 | 212 | 222 | 207 | 223 |
| 1973-74 | 233 | 245 | 228 | 229 | 251 | 265 | 250 | 279 |
| 1974-75 | 289 | 305 | 288 | 301 | 323 | 337 | 317 | 358 |
| 1975-76 | 300 | 293 | 287 | 314 | 299 | 333 | 313 | 342 |
| 1976-77 | 298 | 281 | 297 | 288 | 294 | 332 | 301 | 317 |

[1] Figures for the period up to January 1970 have been estimated from the old Consumer Price Index series for Madras city on base July 1935-June 1936=100. From February 1970 onwards, figures are from the Labour Bureau's New Series on base 1960=100.

Whereas in 1975-76, the all-India general index showed a fall of four points from that of the previous year, during 1976-77, the all-India general index fell by 12 points and the all India food index by 25 points as compared to the previous year 1975-76.

Table 11.11 gives the index numbers of consumer prices for urban non-manual employees for the period 1970-71 to 1976-77. The index numbers for some recent months are also given

**TABLE 11.11 CONSUMER PRICE INDEX NUMBERS FOR URBAN NON-MANUAL EMPLOYEES**

(Base : 1960=100)

| | Year/month | Bombay | Calcutta | Madras | Delhi/ N. Delhi | All India |
|---|---|---|---|---|---|---|
| | 1970-71 | 168 | 170 | 175 | 174 | 174 |
| | 1971-72 | 172 | 174 | 188 | 180 | 180 |
| | 1972-73 | 183 | 180 | 204 | 190 | 192 |
| | 1973-74 | 204 | 204 | 231 | 217 | 221 |
| | 1975-76 | 246 | 243 | 306 | 274 | 277 |
| | 1976-77 | 255 | 251 | 294 | 274 | 277 |
| 1976 | April | 248 | 241 | 285 | 267 | 267 |
| | July | 256 | 249 | 290 | 273 | 275 |
| | October | 256 | 255 | 296 | 274 | 280 |
| 1977 | January | 256 | 254 | 301 | 275 | 282 |
| | April | 263 | 257 | 302 | 282 | 286 |
| | June | 268 | 261 | 304 | 283 | 291 |

# 12 FINANCE

## PUBLIC FINANCE

The power to raise and disburse public funds has been divided under the Constitution between the Government of India and state governments There are thus more than one budget and more than one public treasury in the country. The sources of revenue for the union and the states are, by and large, mutually exclusive. if shareable taxes between them are excluded.

The Constitution provides that (i) no tax can be levied or collected except by authority of law, (ii) no expenditure can be incurred from public funds except in the manner provided in the Constitution and (iii) the executive authorities must spend public money only in the manner sanctioned by Parliament in the case of the union and by the state legislature in the case of a state

All receipts and disbursements of the union government are kept under two separate headings, namely, the Consolidated Fund of India and the Public Account of India All revenues received, loans raised and money received in repayment of loans by the union government go to form the Consolidated Fund No money can be withdrawn from this Fund except under the authority of an Act of Parliament All other receipts and disbursements, such as, deposits, service funds and remittances go into the Public Account which is not subject to the vote of Parliament To meet unforeseen needs, not provided in the Annual Appropriation Act, a Contingency Fund of India has also been established under article 267 (1) of the Constitution.

The Constitution also provides for the establishment of a Consolidated Fund, a Public Account and a Contingency Fund for each state

The Railways, the largest public undertaking, have their own funds and accounts and their budget is presented separately to Parliament. The appropriations and disbursements under the railway budget are subject to the same form of parliamentary and audit control as other appropriations and disbursements

### Sources of Revenue

The main sources of union revenues are customs duties, union excise duties and the corporation and income taxes (excluding taxes on agricultural income). The revenue from the wealth tax accrues to the union Since 1971-72, the value of agricultural property held by individuals and Hindu undivided families has also been brought under the purview of the Wealth Tax Act. However, the net proceeds of the wealth tax on agricultural property are passed on to the states The Railways and Posts and Telegraphs also contribute to the general revenues of the union out of their net profits

The main heads of revenue in the states are the taxes and duties levied by state governments, the share of taxes levied by the central government and grants received from the union Land revenue, sales tax, state excise duties, registration and stamp duties and shares of income tax and union excise duties constitute more than four-fifths of the tax revenue and more than half of the total revenue receipts of the states Property taxes and octroi and terminal taxes are the mainstay of local finance.

**Transfer of Resources to States**

The devolution of resources from the union to the states is a salient feature of the system of federal finance in India. Apart from their share of taxes and duties, state governments receive statutory and other grants as well as loans for various development schemes and rehabilitation purposes. The total amount of resources transferred to the states during the Second Plan period was more than double of that during the First Plan period. It was nearly double again during the Third Plan and more than double in the Fourth Plan as shown in table 12.1. The decline in the total resources transferred to states during 1973-74 was mainly due to rescheduling of debt repayments as suggested by the Sixth Finance Commission.

**TABLE 12·1 RESOURCES TRANSFERRED TO STATES**

(*Rs. crores*)

| Period | Taxes and duties | Grants | Loans[1] | Total | Aggregate expenditures of state govts. | (4) as percentage of (5) |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| First Plan | 352·5 | 214·8 | 637·9 | 1,205·2 | 3,351·9 | 36 0 |
| Second Plan | 710·1 | 700·4 | 1,037 9 | 2,448·4 | 5,815 9 | 41·7 |
| Third Plan | 1,196 0 | 1,302 9 | 2,151·2 | 4,650·1 | 10,719·5 | 43·4 |
| 1966-67 | 372·6 | 413·1 | 638·5 | 1,424·2 | 3,063·9 | 46·5 |
| 1967-68 | 415 7 | 479·0 | 492·5 | 1,387·2 | 3,221·0 | 43·1 |
| 1968-69 | 491·0 | 507·2 | 321·8 | 1,320 0 | 3,627·3 | 36·4 |
| 1969-70 | 621·3 | 531·2 | 398·2 | 1,550·7 | 4,039·1 | 38·4 |
| 1970-71 | 755·3 | 576 0 | 350 5 | 1,681 8 | 4,469·1 | 37·6 |
| 1971-72 | 941·9 | 875·9 | 366·2 | 2,184·0 | 5,305·7 | 41.2 |
| 1972-73 | 1,066·6 | 926·4 | 851·2 | 2,844 2 | 6,475 8 | 43·9 |
| 1973-74 | 1,162·4 | 937·2 | 619 0 | 2,718 6 | 7,259·5 | 37·4 |
| Fourth Plan Period | 4,547·5 | 3,846·7 | 2,585·1 | 10,979·3 | 27,549·2 | 39·9 |
| 1974-75 | 1,228·5 | 1,021 6 | 569·8 | 2,819·9 | 8,004·2 | 35·2 |
| 1975-76 (RE) | 1,495·5 | 1,192·8 | 563·9 | 3,252·2 | 9,404·2 | 34·6 |
| 1976-77 (BE) | 1,635·1 | 1,258 2 | 719 9 | 3,613·2 | 10,226 7 | 35 3 |

[1]Net of repayments RE—Revised estimates. BE—Budget estimates

**Finance Commission**

Under the Constitution, a Finance Commission is to be constituted every fifth year or at such earlier time as the President considers necessary to make recommendations to the President as to (i) the distribution between the union and the states of the net proceeds of taxes which are to be, or may be divided between them under the Constitution and the allocation between the states of the respective shares of such proceeds; (ii) the principles which should govern the grants-in-aid of the revenues of the states in need of such assistance out of the Consolidated Fund of India; and (iii) any other matter referred to the Commission by the President in the interests of sound finance The recommendations of the Commission together with an explanatory memorandum as to the action taken thereon are laid before each house of Parliament

The Sixth Finance Commission was appointed in June 1972. The Commission was asked to go into the question of the non-plan capital gap of the states and also to review their debt position. The Commission presented its report on 28 October 1973. All the recommendations of the Commission have been accepted by the Government. According to the Commission's recommendations the share of the states in income tax pool has been raised from 75 per cent to 80 per cent. The Commission has not suggested any change in regard to sharing of basic union excise duties and the states' share would, therefore, continue to be 20 per cent of the total net proceeds. It has, however, recom-

mended that the auxiliary duties of excise should also be shared from 1976-77 onwards. The grants-in-aid to states are to rise from Rs 711 crores during the five years ended 1973-74 to Rs 2,510 crores during the period 1974-79.

The Commission has recommended liberalisation of the terms of repayment of most categories of central loans outstanding at the end of 1973-74 and this would provide the states with a debt relief of about Rs 1,970 crores over the period of five years ending 1978-79. The Commission has not favoured the setting up of a national fund for incurring relief expenditure.

It is estimated that during the Fifth Plan period the transfer of resources to states by way of their share in central taxes and duties and grants under article 275 of the Constitution would amount to Rs 9,609 crores as against Rs 5,316 crores during the Fourth Plan period

**Budgetary Position**

Table 12 2 shows the budgetary position of the Government of India and table 12 3 gives the consolidated budgetary position of the states and union territories for selected years.

**Annual Financial Statement or Budget**

An estimate of all anticipated revenue and expenditure of the union government for the ensuing financial year is laid before Parliament on the last working day of February every year. This is known as the 'Annual Financial Statement' or the 'Budget' and covers the central government's transactions of all kinds in and outside India occurring during the year in which the statement is prepared as well as the ensuing year or the Budget year as it is known

The presentation of the Annual Financial Statement is followed by a general discussion on the budget in both the Houses of Parliament The estimates of expenditure from the Consolidated Fund of India are then placed before the Lok Sabha in the form of 'Demands for Grants'. Ordinarily, a separate 'Demand' is made for each Ministry All withdrawals of money from the Consolidated Fund are thereafter authorised by an Appropriation Act passed by Parliament every year The tax proposals of the Budget are embodied in another bill which is passed as the 'Finance Act' of the year

Estimates of receipts and expenditure are similarly presented by state governments to their legislatures before the beginning of the financial year and legislative sanction for expenditure is secured through similar procedure.

**Audit**

Audit authorities, who are independent of the executive, scrutinise the expenditure of the central and state governments and ensure that this is strictly within the limits of their competence

**Budget Estimates 1977-78**

The budget estimates for 1977-78, as presented to Parliament on 17 June 1977 placed expenditure on revenue account at Rs 10,579 including states' share of union excise duties, as compared to Rs 9,581 crores (revised) in 1976-77 and revenue at Rs 10,633 crores (including the union's share of the proposed additional taxation amounting to Rs 117 crores) as compared to Rs 9,534 crores (revised) in the previous year, resulting in anticipated surplus of Rs 54 crores However, taking into account the capital transactions, this surplus has been turned into a deficit of Rs 84 crores (after allowing for the post-budget concessions).

TABLE 12 2

BUDGETARY POSITION OF THE GOVERNMENT OF INDIA

(Rs crores)

| Major head[1] | 1965-66 | 1970-71 | 1972-73 | 1974-75 | 1975-76 (Revised) | 1976-77[2] (Budget) |
|---|---|---|---|---|---|---|
| I. *Revenue account* | | | | | | |
| A Revenue | 2,344 4 | 3,341 9 | 4,578 3 | 6,557 6 | 8,022 8 | 8,219 4 |
| B Expenditure | 2,024 6 | 3,178 9 | 4,592 6 | 5,793 3 | 7,116 7 | 7,766 3 |
| C Surplus (+) or deficit (—) | +319 8 | +163 0 | —14 3 | +764 3 | +906 1 | +453·1 |
| II. *Capital account* | | | | | | (+412·4) |
| A Receipts[3,4] | 1,646 3 | 2,524 2 | 2,974 0 | 3,296 7 | 4,678 7 | 5,147·3 |
| B Disbursements | 2,138 9 | 2,972 0 | 3,828 6[6] | 4,781 8 | 6,074 4 | 6,061 1 |
| C Surplus (+) or deficit (—) | —492 6 | —447 8 | —854 6[6] | —1,485 1 | —1,395 7 | —913 8 |
| III Overall Surplus (+) or deficit (—)(1C+IIC) | —172 8 | —284 8 | —868 9[6] | —720 8 | —489 6 | —460 7 |
| *Financed by.* | | | | | | |
| A Increase in (—) treasury bills[5] | —218 3 | —359 1 | —954 9[6] | —780 0 | —225 0 | —320 0 |
| B Cash balances decrease (—) or increase (+) | +45 5 | +74 3 | +86 0 | +59·2 | —264 6 | — 0 4 |
| (i) opening balance | —2 0 | +156 0 | + 60 4 | +258·5 | +317 4 | + 52 8 |
| (ii) closing balance | +43 5 | +230 3 | +146 4 | +317·4 | + 52 8 | + 52 4 |
| C Uncovered | — | — | — | — | — | 140·3 |

[1]From 1965-66 onwards changes have been effected in accounting classification of the budget For budgetary position of earlier years see India 1975 [2]At 1975-76 rates of taxation The effects of additional taxation adjusted for tax concessions are given in brackets Details of financing are in respect of overall deficit after taking credit for yield from additional taxation [3]Excluding Treasury Bill receipts [4]Excludes conversion of adhoc Treasury bills of Rs 50 crores in 1965-66, Rs 75 crores in 1970-71 and Rs 100 crores in each 1971-72, 1972-73, 1973-74, 1974-75 and 1975-76 revised estimates) to dated securities [5]Mostly sold to the Reserve Bank. [6]Excludes the notional transfer of Rs 421·1 crores on account of centre's assistance to states for clearing their overdrafts with the RBI,

*Source* · Reserve Bank of India Bulletin, November, 1976

TABLE 12.3

CONSOLIDATED BUDGETARY POSITION OF STATES AND UNION TERRITORIES

(*Rs. crores*)

| Major head | 1950-51 | 1960-61 | 1965-66 | 1974-75 | 1975-76 (Revised) | 1976-77 (Budget) |
|---|---|---|---|---|---|---|
| I. *Revenue account* | | | | | | |
| Revenue | 375 8 | 1,041 4 | 1,867 1 | 6,003 8 | 7,172·2 | 7,929 7 |
| Expenditure | 373 8 | 1,016 2 | 1,901·2 | 5,601 9 | 6,620 4 | 7,318·20 |
| Surplus (+) or deficit (—) | +2 0 | +25·2 | —34 1 | 401 9 | +551 8 | +611 5 |
| II. *Capital account* | | | | | | |
| Receipts | 112 6 | 427 8 | 928·6 | 1,160 5 | 1,464 3 | 1,495 5 |
| Disbursements | 99 2 | 452 0 | 982 5 | 1,691·7 | 1,940 1 | 2,111 6 |
| Surplus (+) or deficit (—) | + 13 4 | —24 2 | — 53 9 | —531 2 | —475 8 | — |
| III *Overall surplus (+) or deficit (—)* *Financed by* : | +15 4 | +1 0 | —88 0 | —129 3 | +76 0 | —4 6 |
| A Ways and means advances from Reserve Bank of India (Net) | —4 6 | +3 2 | +14 0 | —2·7 | —40 0 | +1 0 |
| B. Drawals from cash balances | —10 8 | —4 2 | +74·0 | +132 0 | —36 0 | +3·6 |

been provided for tax evasion. In cases where tax evasion exceeds Rs 1 lakh or prosecution is for the second or subsequent offence, the maximum punishment prescribed is seven years' rigorous imprisonment. The discretion vested in courts to award monetary punishment as an alternative to imprisonment or to reduce the term of imprisonment less than the minimum period, has been taken away. The scope of tax fraud has also been extended to cover wilful attempt to evade tax or even payment thereof.

**Special Legislation for confiscation of Smugglers' Properties**

The Smugglers and Foreign Exchange Manipulators (forfeiture of property) Act, 1976 received the assent of the President on 25 January 1976. The objective is to combat the menace of smuggling and foreign exchange racketeering in the country. It seeks to forfeit, the illegally acquired properties (movable and immovable) of the smugglers, foreign exchange manipulators and of their relatives and associates.

Under the Act three Competent Authorities with their head quarters at Delhi, Madras and Bombay have been appointed for implementation of the Act. Up to 30 November 1976 these authorities issued 486 notices and the value of the properties covered by these show-cause notices aggregate to about Rs 16.12 crores.

## PUBLIC DEBT

The outstanding public debt of the Government of India was estimated at Rs 22.744.77 crores at the end of 1976-77 and is estimated to be Rs 25,850.22 crores at the end of 1977-78. Table 12.5 gives an analysis of the public debt outstanding at the end of selected years since 1950-51. Table 12 6 shows the debt position of state governments whose total liability aggregated to Rs 14,740 crores.

## MONEY SUPPLY AND CURRENCY

Money supply comprises currency with the public and such of the deposit money with the banking system, including the Reserve Bank of India, as is withdrawable 'On demand'. The total supply of money with the public thus stood at Rs 14,458 6 crores at the end of 1976 of which currency with the public accounted for Rs 7,398 6 crores and deposit money Rs 7,060 crores. In 1976, money supply registered an increase of Rs 2,179 1 crores as compared with a rise of Rs 1,052 6 crores in 1975. Component-wise, both currency with the public and deposit money recorded increases of Rs 922 4 crores and Rs 1,256 7 crores respectively during 1976 as compared with the rise of Rs 307.6 crores and Rs 745 crores respectively in 1975. The trends in money supply and its components since 1961 are indicated in table 12 7

Increase in money supply in 1976 was substantially higher than in the previous two years and even exceeded the earlier peak level increase in 1973. The rapid growth of money supply in 1976 was brought about by the increased credit requirements for rising industrial production, priority sectors, silk mills, growth of inventories of industrial products which were forced with demand recession, financing of growing food-grain stocks and inflow of foreign exchange. Thus, bank credit to commercial sector and net foreign exchange assets of the banking sector increased by Rs 3,297 crores and Rs 1,535 crores in 1976 as compared to Rs 2,351 crores and Rs 115 crores respectively in 1975 Government's net currency liabilities to public also recorded a smaller increase of Rs 8 crores than Rs 27 crores in the previous year These together with higher increase in non-monetary liabilities of the banking sector which is a contractionary factor in money supply, helped to moderate the increase in money supply to some extent in 1976.

TABLE 12 6

DEBT POSITION OF STATES

(*Rs crores*)

| Major head | As at the end of 1951-52 | 1965-66 | 1971-72 | 1973-74 | 1974-75 | 1975-76 (Revised) | 1976-77 (Budget) |
|---|---|---|---|---|---|---|---|
| I *Public debt* | | | | | | | |
| (i) Permanent debt[1] | 134 | 827 | 1,332 | 1,625 | 1,836 | 2,103 | 2,306 |
| (ii) Floating debt[2] | 16 | 189 | 621 | 188 | 181 | 132 | 132 |
| (iii) Loans from central government | 241 | 4,110 | 6,732 | 8,579 | 9,149 | 9,712 | 10,433 |
| (iv) Other debt[3] | — | 162 | 258 | 342 | 399 | 503 | 515 |
| II *Unfounded debt*[4] | 58 | 231 | 627 | 857 | 1,001 | 1,165 | 1,354 |
| TOTAL . | 449 | 5,519 | 9,570 | 11,591 | 12,566 | 13,615 | 14,740 |

1 Represents current and expired loans floated in the market and zamindari jagirdari abolition bonds.

2 Represents mainly ways and means advances from the Reserve Bank of India.

3 Includes loans from the National Agricultural Credit (Long term operations) Fund of RBI Khadi and Village Industries Commission, Employees' State Insurance Corporation, State Bank of India,etc

4 Includes state provident funds, postal insurance and life annuity funds, family pension fund, staff benefit fund and special loans consisting generally of endowments for specific, purposes of a religious and charitable nature

(Rs crores)

TABLE 12.7
MONEY SUPPLY WITH PUBLIC

| End of December | Currency with the public | | Deposit money with the public | | Money supply with the public | |
|---|---|---|---|---|---|---|
| | Amount | Annual variation | Amount | Annual variation | Amount | Annual variation |
| 1961 | 2,099.5 | 2.1 | 771.7 | 36.6 | 2,871.2 | [illegible] |
| 1962 | 2,236.3 | 136.8 | 877.6 | [illegible] | 3,113.9 | +[illegible] |
| 1963 | 2,475.8 | +239.5 | 1,055.4 | 177.8 | 3,531.2 | +417.3 |
| 1964 | 2,661.1 | 185.3 | 1,231.9 | 176.5 | 3,893.0 | [illegible] |
| 1965 | 2,865.0 | 203.9 | 1,425.6 | +193.7 | 4,290.6 | +397.6 |
| 1966 | 3,008.1 | 143.1 | 1,673.1 | +247.5 | 4,681.2 | +390.6 |
| 1967 | 3,209.8 | +201.7 | 1,892.0 | +218.9 | 5,101.8 | +420.6 |
| 1968 | 3,372.2 | 162.4 | 2,016.7 | 124.7 | 5,388.9 | +287.0 |
| 1969 | 3,763.6 | [illegible] | 2,272.4 | 255.6 | 6,036.0 | +647.0 |
| 1970 | 4,170.0 | [illegible] | 2,624.3 | +352.1 | 6,794.4 | 758.4 |
| 1971 | 4,577.0 | +407.0 | 3,142.9 | +518.5 | 7,719.9 | +925.5 |
| 1972 | 4,927.5 | 350.5 | 3,788.1 | 645.5 | 8,715.6 | +996.0 |
| 1973 | 5,801.6 | +873.[illegible] | 4,384.1 | +595.7 | 10,185.1 | +1,4[illegible].2 |
| 1974 | 6,168.6 | +367.6 | 5,058.3 | +674.2 | 11,226.9 | +1,041.5 |
| 1975 | 6,476.2 | +307.6 | 5,803.3 | +745.0 | 12,279.5 | +1,052.6 |
| 1976[1] | 7,398.6 | +922.4 | 7,060.0 | 1256.7 | 14,458.6 | +2,179.1 |

[1]Provisional

Currency

During 1976, currency in circulation[1] registered an expansion of Rs 940.19 crores (to Rs 7,767.42 crores) as compared with Rs 380.34 crores in the preceding year. From 1961 to 1976 currency in circulation expanded by Rs 5,646.9 crores or by 266.3 per cent.

Of the expansion of Rs 940.19 crores in currency in circulation during 1976 bank notes accounted for an increase of Rs 931.51 crores, the expansion in 1975 under this head being Rs 354.01 crores. Rupee coins in circulation (including one rupee notes) were lower by Rs 0.16 crore as against an increase of Rs 10.94 crores in the preceding year. Circulation of small coins rose by Rs 8.84 crores which was lower than that registered in 1975 at Rs 15.39 crores. At the end of 1976, bank notes, rupee coins (including one rupee notes and small coins) in circulation stood at Rs 7,208.96 crores, Rs 327.92 crores and Rs 230.54 crores respectively.

ANTI-SMUGGLING MEASURES

The government has been taking various measures from time to time to deal effectively with the problem of smuggling and foreign exchange racketeering. The legislative measures include an amendment of the Customs Act in 1969 providing for control over internal transactions in certain categories of goods.

In 1973 the Customs Act was further amended to prescribe enhanced punishment. The Foreign Exchange Regulation Act 1947 was replaced by a new Act in 1973 to supplement anti-smuggling measures.

It was, however, observed that despite the amendments in the Customs Act and Foreign Exchange Regulation Act, the king-pins in the smugglers' hierarchy always used to escape the dragnet of law and only their carriers or persons employed by them were caught. Hence preventive detention of persons engaged in such activities was resorted to for the first time by an ordinance amending the Maintenance of

[1]Figures are inclusive of notes, rupee coins (including one rupee notes) and small coins held by banks and at treasuries but exclusive of Rs 43 crores of Indian notes received from Pakistan and awaiting cancellation

Internal Security Act of 1971. This ordinance was replaced by the Conservation of Foreign Exchange and Prevention of Smuggling Activities Act (COFEPOSA) which came into force on 19 December 1974 The Conservation of Foreign Exchange and Prevention of Smuggling Activities Act was further amended on 14 December 1975 by an ordinance giving the government the power to detain smugglers and foreign exchange racketeers for one or two years or as long as the Emergency lasts.

Through the amendment the government has assumed powers to extend the period of detention up to 31 December 1977 in those cases where the period of detention was due to expire by the end of 1975.

To encourage the public to come forward with information regarding smuggling, government has introduced a scheme for payment of reward to persons for their contribution in effecting seizure of contraband goods

Toning up Administration

In 1974, a drive was launched for cleaning and toning up the administration by weeding out all employees who had links with persons involved in smuggling or foreign exchange racket They were either transferred to routine posts or retired prematurely. In some cases disciplinary proceedings were instituted against concerned officers. As a result of the intensive anti-smuggling drive, the smuggling activities have been contained to a large extent; open display and sale of smuggled goods in the market has almost disappeared. Moreover, there has been appreciable increase in the inward remittance of foreign exchange through legal channels.

## BANKING

The commercial banking system in India consisted of 122 scheduled[1] commercial banks and 8 non-scheduled commercial banks at the end of June 1977, the former accounting for 99 9 per cent of the aggregate banking business in the country. Of the 122 scheduled commercial banks, 70 are in the public sector. In terms of business, public sector banks occupy a dominating position, their share in the entire banking system being about 84 per cent.

Table 12 8 shows some important indicators in regard to progress of commercial banking in recent years.

Amongst the public sector banks, the State Bank is the biggest unit Apart from the main State Bank, there are 7 other banks associated with it as subsidiaries The State Bank and its subsidiaries account for roughly 29 per cent of the aggregate banking business in the country and 35 per cent of the business conducted by the public sector banks The other 14 banks in the public sector are known as 'nationalised' banks They came into the public sector on 19 July 1969 The main objective of nationalisation was to use financial institutions as the instrument for promoting economic and social development in a more purposive manner. Ever since nationalisation there has been a rapid growth of the banking network

Branch Expansion

The largest number of new branches opened in any year, prior to nationalisation, was 677 in 1968 The number of new branches

[1]According to a notification under the Reserve Bank's Act, banks which have not less than Rs 5 lakhs capital and reserve can alone be sheduled to the Reserve Bank.

TABLE 12 8

PROGRESS OF COMMERCIAL BANKING

| Important indicators | June 1969 | June 1973 | June 1974 | June 1975 | June 1976 | June 1977 |
|---|---|---|---|---|---|---|
| Number of commercial banks | 89 | 83 | 83 | 83 | 100 | 130 |
| (i) Scheduled commercial banks | 73 | 74 | 74 | 74 | 92 | 122 |
| (ii) Non-scheduled commercial banks | 16 | 9 | 9 | 9 | 8 | 8 |
| Number of offices in India | 8,262 | 15,362 | 16,936 | 18,730 | 21,220 | 24,802 |
| Population per office (in thousands) | 64 | 37 | 35 | 32 | 29 | 22 |
| Aggregate deposits of scheduled commercial banks (Rs crores) | 4,646 | 9,165 | 10,756 | 12,362 | 15,178 | 18,812 |
| Aggregate credit of scheduled commercial banks (Rs crores) | 3,599 | 6,412 | 7,858 | 8,963 | 11,476 | 13,485 |
| Per capital deposit of scheduled commercial banks (Rs ) | 88 | 160 | 184 | 207 | 254 | 315 |
| Per capital credit of scheduled commercial banks (Rs ) | 68 | 112 | 134 | 150 | 192 | 226 |
| Deposits as percentage of national income (at current prices)[1] | 15 0 | 21 6 | 20 6 | 19 6 | 22 7 | N A |

[1]Relates to end of March. n a =Not available

opened in the years subsequent to nationalisation was 1,369 in 1969, 2,137 in 1970, 1,805 in 1971, 1,763 in 1972, 1,782 in 1973, 1,693 in 1974, 2,334 in 1975 and 24,802 as on 30 June 1977.

As against 10,131 branches at the end of June 1970, the total number of commercial bank branches at the end of June 1977 was 24,802 The average population per branch for the country as a whole has been brought down from 53,000 in June 1970 to 22,000 by the end of June 1977 Public Sector banks branches increased from 9,253 to 18,902 during the same period

**Coverage of Rural Centres**

In the selection of centres for opening new branches, there has been a deliberate emphasis on covering potential centres in rural and semi-urban areas, particularly unbanked centres. The number of branches located in rural areas was 3,063 at the end of June 1970, rose to 9.532 @ 38 4 per cent of the total as on 30 June 1977 The total number of rural branches of the public sector banks increased from 2,597 to 7,197 during the same period It has been decided that each unbanked community development block should be provided with a bank office latest by the end of June 1978

**Regional Rural Banks**

To meet the credit requirements of weaker sections, small and marginal farmers, landless labourers, artisans and small entrepreneurs the regional rural banks were established There are 48 such banks are functioning in different parts of the country As on 31 August 1977, they had opened 887 branches, mobilised deposits of Rs 20 5 crores involving 5 4 lakh accounts Since their inception, they had disbursed credit of Rs 27.4 crores involving 3 1 lakh accounts Small and marginal farmers landless labourers were given Rs 15.9 crores and the rural artisans got Rs 8 3 crores.

**Lead Bank Scheme**

The Lead Bank Scheme was evolved towards the end of 1969 to give concrete shape to the idea of 'area approach' in the development of banking To enable the banks to assume the role of leadership in an effective and systematic manner, all the districts of the country, except Calcutta, Greater Bombay and Madras, and the union territories of Chandigarh, Delhi and Goa, Daman and Diu were allotted among the public sector banks and three selected private banks Each of these banks is expected to provide leadership to the other banks and financial institutions located in the districts allotted to it.

The year 1974 witnessed the conclusion of the first phase of the Lead Bank Scheme with the completion of the surveys of all the districts covered under the scheme District level coordination committees, organised under the Lead Bank Scheme to achieve greater coordination among all the financial institutions meet regularly.

Having completed the basic task of surveying their lead areas and establishing forums for achieving a greater degree of coordination, the lead banks have now started devoting greater attention to the formulation of suitable schemes for implementation in their lead districts.

**Deposit Mobilisation**

Deposits of all scheduled commercial banks stood at Rs 18,812 crores on 30 June 1977 as compared to Rs 5,275 crores at the end of June 1970. During 1976-77, the deposits rose by Rs 3,634 crores, a growth of 23 9 per cent. The deposits of public sector banks increased from Rs 4,426 crores at the end of June 1970 to Rs 15,911 crores as on 30 June 1977

**Deposit Insurance Corporation**

To provide a measure of protection to the small depositors, a Deposit Insurance Corporation was set up in 1962. Every commercial bank in India and every eligible co-operative bank in any of the states and union territories to which the deposit insurance scheme has been extended by the central government is registered as an insured bank. There were 126 insured commercial banks and 639 insured co-operative banks on 30 June 1977. The insurance limit was Rs 10,000 per depositor in respect of all deposits held by him in an insured bank. From 1 July 1976 the insurance limit has been raised to Rs 20,000. The insured banks are required to pay a premium at 0.04 per cent per annum to the Corporation on their assessable deposits.

**Use of Banks' Resources**

Two main uses to which deposit resources of commercial banks deployed are (i) investment in government and other approved securities, and (ii) loans and advances commonly known as 'bank credit'.

**Export Credit**

Advances of scheduled commercial banks, which stood at Rs 4,213 crores on 30 June 1970, increased to Rs 13,485 crores by the end of June 1977. Public Sector banks advances increased from Rs 3,578 crores to Rs 11,643 crores during the same period.

**Export Credit**

Credit to export sector continues to enjoy a high priority in the scheme of credit deployment outlined by the Reserve Bank. Banks provide export credit at a maximum rate of 11.5 per cent for stipulated periods. Credit on deferred payment basis is extended at a maximum interest rate of 8 per cent per annum for the prescribed periods. The quantum of outstanding export credit granted by the scheduled commercial banks was Rs 1,184 crores at the end of April 1977.

There has been further liberalisation in the operation of the export credit. The Reserve Bank has taken the following steps :

(i) Banks have been advised to consider granting suitable credit facilities to consultancy firms even where consultancy services alone are exported and to exporters who have to send their products abroad for exhibition before sale, (ii) to industries where a substantial part of output is meant for export or new potential for export could quickly be built up; (iii) in cases where exporter is not able to execute the original contract due to circumstances beyond his control; (iv) to provide pre-shipment credit to carpet exporters not only from the time the finished goods are ready for export but also at earlier stages to cover the raw material and other costs incurred in the process of manufacture; and (v) to allow the benefit of concessional pre-shipment credit to be shared between the export house/agency having the contract and the sub-supplier.

With a view to streamlining and simplifying procedure relating to exports on deferred payment terms, general permission has been granted by the Bank to exporters to make offers and enter into negotiations for export of capital goods provided certain specific conditions are fulfilled in cases where—(i) contract value does not exceed Rs 50 lakhs (ii) the contract period does not exceed 5 years and (iii) IDBI assistance is not required IDBI has been made the focal point for grant of approval for other deferred payment contracts From 1 February 1976 the Bank has introduced a Duty Drawback Scheme under which banks will grant interest-free advances up to 90 days to exporters against their entitlements for duty drawbacks as provisionally certified by customs authorities.

**Credit Authorisation Scheme**

To ensure proper use of bank credit, the credit authorisation scheme was introduced by the Reserve Bank of India in 1965. Under the scheme, all the scheduled commercial banks are required to obtain the Reserve Bank's prior authorisation before sanctioning any fresh credit limits (including commercial bill discounts but excluding letters of credit and guarantee limits) of Rs 1 crore or more to a single party or any limit that would take the total limit enjoyed by such party from the entire banking system (including co-operative sector) to Rs 1 crore on secured or insecured basis. The scheme also covers individual term credit limits exceeding Rs 25 lakhs as well, where the term of repayment exceeds three years, irrespective of the totality of credit limits available to the party from the entire banking system.

During 1973-74, the scheme was extended to cover advances to public sector undertakings, including State Electricity Boards, as also advances against the guarantee of central and state governments These advances were earlier exempted from the requirements of Reserve Bank's prior authorisation Banks are now required to obtain such authorisation under the scheme for sanctioning, to the above category of borrowers, any credit limits (including commercial bill discounts) of Rs 3 crores or more or any limit that would take the total limit enjoyed by such a party from the entire banking system to Rs 3 crores or more, on secured or unsecured basis

In November 1975 the Reserve Bank raised the minimum limit from Rs 1 crore to Rs 2 crores for private sector undertakings However, the limit was retained at Rs 3 crores for public sector concerns It was further clarified that for advances covered by the central and state governments guarantees in respect of borrowers enjoying credit limits below Rs 3 crores, from the entire banking system, prior authorisation of the Reserve Bank was applicable to working capital only and not to interim finance or bridge loans meant for financing capital expenditure

**Tandon Committee Report**

The study group to frame guidelines for follow-up of bank credit, set up by the Bank in 1974 under the Chairmanship of Shri P. L Tandon, has since submitted its report The Bank has accepted the recommendations of the group and advised the banks to implement them in a phased manner

**Advances to Neglected Sectors**

The extension of credit to small borrowers in the hitherto neglected sectors of the economy is one of the principal tasks assigned to the public sector banks To achieve this objective the banks have drawn up schemes to extend credit to small borrowers in sectors like agriculture, small-scale industry, road transport, retail and small business, which traditionally had very little share in the credit extended by the banks The number of borrowal accounts with the public sector banks for these categories of borrowers increased from 8 47 lakhs to 64 5 lakhs between June 1970 and March 1977. The amount outstanding during the same period increased from Rs 747 crores to Rs 3,042 crores The share of these sectors in the total credit at the end of March 1977 was 27 0 per cent against 20 9 per cent in June 1970.

Table 12 9 shows the achievements of the public sector banks in stepping up the flow of credit to various neglected sectors

**Bank Finance for Agriculture**

To step up the flow of credit to the agricultural sector, public sector banks have extended their geographical coverage, strengthened technical field staff and organisational structure, introduced special schemes

TABLE 12 9
CREDIT FLOW TO NEGLECTED SECTORS

| Sector | No. of borrowal accounts | | Amount Outstanding (Rs crores) | |
|---|---|---|---|---|
| | June 1970 | March 1977[1] | June 1970 | March 1977[1] |
| Agriculture (excluding plantations) | | | | |
| (i) Direct Finance | 6,12,477 | 39,80,975 | 160·38 | 921·93 |
| (ii) Indirect Finance | 19,076 | 5,16,347 | 141·26 | 314 72 |
| Small Scale Industry[2] | 81,380 | 4,10,758 | 369·50 | 1,259 62 |
| Road and water transport operator[2] | 12,690 | 1,60,576 | 24 42 | 246 94 |
| Retail trade and small business | 87,523 | 8,60,646 | 42·81 | 224 02 |
| Professional and self-employed | 28,879 | 4,91,315 | 6·72 | 69 40 |
| Education | 4,995 | 24,752 | 2 06 | 5 54 |
| Total | 8,47,020 | 64,45,369 | 747 15 | 3,042 18 |

[1] Provisional [2]Number of units

and simplified application forms and lending procedures. They are concentrating their efforts in compact areas through intensive programmes As part of the strategy of 'area approach', the State Bank of India and its subsidiaries have opened 262 agricultural development branches and financed 6,74,476 farmers up to 31 March 1977 with total outstanding of Rs 143.07 crores.

Banks have ensured that small and marginal farmers and agricultural labourers are not denied bank finance for their genuine credit requirements for want of adequate security and their credit needs are met on priority basis

The scheme of financing primary agricultural credit societies by commercial banks has been extended to more states and is now in operation in Assam, Andhra Pradesh, Bihar, Haryana, Jammu and Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Uttar Pradesh and West Bengal

**Small Scale Industries**

Small-scale industries constitute an important segment of the priority sector. The outstanding advances of Public Sector banks to these industries in March 1977 which stood at Rs 1,260 crores covering 4.10 lakh borrowing units.

**Credit Guarantee Corporation of India**

To encourage banks to undertake financing of small borrowers on a much larger scale without any excessive risks, the government set up the Credit Guarantee Corporation of India in 1971 to provide guarantee cover to the banks in respect of small loans. The Corporation operates three types of guarantee-schemes, *viz*, (i) Small Loans Guarantee Scheme, (ii) Small Loans, (Financial Corporations) Guarantee Scheme and (iii) Service Co-operative Societies Guarantee Scheme.

The credit facilities covered under the various schemes of the Corporation as on the last Friday of June 1975 aggregated to Rs 636 13 crores.

**Half-a-million Jobs Programme**

Public sector banks continued to provide liberal assistance to the educated unemployed under the Half-a-million Jobs Programme. As at the end of 1976, these banks had sanctioned 68,702 applications under the scheme The amount outstanding was Rs 80.33 crores.

**Co-ordination among Public Sector Banks**

For better co-ordination among public sector banks and administrative agencies of the state governments six regional consultative committees, consisting of representatives of state governments and union territories and chairmen of nationalised banks have been constituted. These committees review banking development in their respective regions Similarly, state-level co-ordination committees have been set up

**Board of Directors of Public Sector Banks**

The Boards of Directors of the 14 nationalised banks, have been re-constituted in 1977. Representatives of staff and bank officers have been included in the capacity of Directors. These Boards of Directors also include experts from different fields such as agriculture, small industries and handicrafts.

**Differential Interest Rate Scheme**

To help the weaker sections of society, a scheme of differential interest rate has been in operation since 1972. Under the scheme public sector banks make funds available to certain categories of borrowers in industrially backward districts at a concessional rate of 4 per cent for their productive endeavours

As at the end of March 1977, these banks had assisted 11 06 lakh borrowers and the amount outstanding was Rs 51.37 crores

**Foreign Branches of Indian Banks**

Eighty five branches of ten Indian commercial banks were operating in 21 foreign countries at the end of 1976, the largest concentration being in UK, Fiji, Kenya, Hongkong, Mauritius and Singapore These banks mainly cater to the demands of trade and commerce between India and these countries and also meet the needs of the sizable populations of Indian origin in these countries

The scope of Indian banks' activities in the continent of Europe has been widened with the opening of a branch of the State Bank of India at Frankfurt With the opening of branches of the Bank of Baroda at Dubai and Abu Dhabi for the first time an Indian Bank has established its presence in the Gulf area The State Bank of India has also a branch now in Maladive Islands

## RESERVE BANK

Prior to the establishment of the Reserve Bank of India in 1935, the Imperial Bank of India, though primarily a commercial bank, performed certain central banking functions and in particular acted as a banker to Government.

The Reserve Bank was originally constituted as a shareholders' institution with a share capital of Rs 5 crores The capital has remained unchanged to this day The entire share capital was, in the beginning, owned by private shareholders with the exception of shares of the nominal value of Rs 2 2 lakhs, which were allotted to the central government Subsequently the entire share capital of the Bank was acquired by the central government against compensation to the share holders and from 1 January 1949, it became a state-owned institution.

**Functions**

The main function of the Bank is to regulate the issue of Bank notes and keep reserves for securing monetary stability The Bank is the sole authority for the issue of currency in India other than one rupee coins/notes and subsidiary coins As the agent of the central government, it undertakes the distribution of one rupee notes and coins as well as small coins issued by the Government of India

The Bank acts as banker to Government of India, state governments, commercial banks and to some of the financial institutions

including state co-operative Banks. It formulates and administers monetary policy in order to influence the level of aggregate demand for goods and services by varying the cost and availability of credit. The Reserve Bank also plays an important role in the maintenance of the exchange value of the rupee, and acts as an agent of the government in respect of India's membership of the International Monetary Fund. The Bank now performs a variety of developmental and promotional functions.

## CORPORATE SECTOR

The number of joint stock companies both government and private incorporated under the Companies Act, 1956 and at work in India on 30 September 1977, was 49,398. The total paid-up capital of the companies limited by shares, which numbered 47,986, amounted to Rs 10,149 4 crores. Of these, 8,101 were public limited and 39,885 were private limited companies having a paid-up capital of Rs 2,736.8 crores and Rs 7,412.6 crores respectively.

Table 12.10 shows the number and paid-up capital of the companies functioning in 1951, 1961, 1971 and 1974 onwards and up to 30 September 1977.

Table 12.11 shows the region/state-wise distribution of companies limited by shares at work on the basis of the location of their registered offices and of the new companies registered during 1976-77 and the first half of 1977-78.

2,699 companies were registered during 1976-77. Of these 2,649 were companies limited by shares, with an authorised capital of Rs 1,525.3 crores. 215 of these companies limited by shares were public limited and 2,434 were private limited companies having an authorised capital of Rs 196.3 crores and Rs 1,329 crores respectively.

**Capital Issues and Project Costs**

During 1976-77, 69 non-government non-financial public limited companies issued capital through prospectuses amounting to Rs 34 30 crores Of this, Rs 30.27 crores were issued in the form of share capital of Rs 4.03 crores as preference shares As compared to this, 82 companies had issued capital amounting to Rs 63.68 crores—Rs 55 58 crores in the form of shares Rs 7.90 as preference shares and Rs 0.20 crores as debentures during 1975-76. There was, thus, a decline both in number and amount of capital issued during 1976-77 Out of the total capital issued during 1976-77, Rs 28 55 crores (83 2 per cent) was offered to the public, of which Rs 25 20 crores (82.3 per cent) was underwritten The total project cost of these companies issuing capital during 1976-77 was estimated to be about Rs 155 74 crores as compared to Rs 254 59 in the preceding year

**Companies which Ceased to Work**

The number of companies which went into liquidation or were struck off under section 560 (5) of the Companies Act, 1956 or otherwise became defunct or ceased to work during 1976-77 was 275. Comparative figures for earlier years were : 1965-66—915, 1969-70—523, 1970-71—472, 1971-72—373, 1972-73—550, 1973-74—315, 1974-75—270 and 1975-76—303.

**Government Companies**

Table 12 12 gives the number and paid-up capital of government companies at work for 1962, 1965 and 1972 onwards and up to 30 September 1977.

TABLE 12·10

COMPANIES AT WORK

| As on 31 March | Companies with share capital | | | | | | Associations not for profit (registered mostly as companies limited by guarantee) |
|---|---|---|---|---|---|---|---|
| | Public | | Private | | Total | | |
| | No. | Paid-up capital (Rs crores) | No | Paid-up capital (Rs crores) | No. | Paid-up capital (Rs. crores) | No |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1951 | 12,568 | 566 5 | 15,964 | 208 9 | 28,532 | 775 4 | 1,213 |
| 1961 | 6,702 | 948 2 | 19,447 | 870 3 | 26,149 | 1,818·5 | 1,169 |
| 1971 | 6,691 | 2,005 2 | 23,770 | 2418 4 | 30,461 | 4,423·6 | 1,220 |
| 1974 | 7,331 | 2,218 2 | 31,052 | 4969 1 | 38,383 | 7,187·3 | 1,294 |
| 1975[1] | 7,646 | 2,330 5 | 34,158 | 5265 6 | 41,804 | 7,596 1 | 1,326 |
| 1976[1] | 7,869 | 2,535 3 | 36,620 | 6301·6 | 44,489 | 8,836 9 | 1,337 |
| 1977[1] | 8,019 | 2,677 0 | 38,837 | 7275 9 | 46,856 | 9,952 9 | 4,356 |
| As on 30-9-77[1] | 8,101 | 2736 8 | 39,885 | 7,412 6 | 47,986 | 10,149 4 | 1,369 |

[1] Provisional

TABLE 12 11

REGION/STATEWISE DISTRIBUTION OF COMPANIES AT WORK

| Region /State | Companies at work as on 31-3-1977 | | 30-9-1977 | | Companies registered during 1976-March April-1977 | | April 1977 Sept 1977 | |
|---|---|---|---|---|---|---|---|---|
| | No | Paid-up capital (Rs crores) | No | Paid-up Capital (Rs crores) | No | Authorised Capital (Rs crores) | No. | Authorised capital (Rs crores) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| *Eastern Region* | | | | | | | | |
| Assam | 649 | 94 7 | 663 | 102 8 | 23 | 5·6 | 19 | 0·9 |
| Arunachal Pradesh | 2 | — | 5 | — | 2 | 1·4 | 3 | 0·2 |
| Meghalaya | 63 | 8 6 | 64 | 8·6 | 9 | 79 4 | 1 | — |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|
| Mizoram | 1 | — | 1 | — | 1 | 0 01 | — | — |
| Bihar | 753 | 1,859·4 | 767 | 1,860 1 | 42 | 9 0 | 17 | 6·8 |
| Manipur | 9 | 1 6 | 11 | 1 6 | 3 | 0·5 | 2 | — |
| Nagaland | 12 | 32 2 | 12 | 32 2 | 1 | — | — | — |
| Orissa | 375 | 67 7 | 387 | 67 8 | 40 | 307·6 | 12 | 4 1 |
| Tripura | 12 | 2·1 | 12 | 2·1 | — | — | — | — |
| West Bengal | 11,790 | 1,152 5 | 11,999 | 1,162 5 | 459 | 164 7 | 242 | 24 1 |
| Andaman & Nicobar Islands | 4 | — | 4 | — | — | — | — | — |
| Total : | 13,670 | 3,218·8 | 13,925 | 3,237 7 | 580 | 568 3 | 296 | 36 1 |
| *Northern Region* | | | | | | | | |
| Haryana | 401 | 21 0 | 409 | 27 1 | 15 | 2 1 | 9 | 0 1 |
| Himachal Pradesh | 131 | 22·0 | 134 | 22 2 | 13 | 0 8 | 3 | 0 2 |
| J&K | 139 | 30 6 | 143 | 30 6 | 7 | 2 7 | 5 | 0 5 |
| Punjab | 1,218 | 29 5 | 1,224 | 31 0 | 52 | 5 7 | 15 | 0 2 |
| Rajasthan | 756 | 101 9 | 760 | 107 7 | 50 | 14 7 | 13 | 1 9 |
| U P. | 2,191 | 221 2 | 2,270 | 226 3 | 138 | 24 0 | 85 | 9 3 |
| Chandigarh | 187 | 36 5 | 197 | 39 5 | 20 | 8 1 | 10 | 0 9 |
| Delhi | 5,530 | 3116·7 | 5,692 | 3,205 1 | 400 | 56 9 | 176 | 9·6 |
| Total | 10,553 | 3,579 4 | 10,829 | 3,689 5 | 695 | 115 0 | 316 | 23 2 |
| *Southern Region* | | | | | | | | |
| Andhra Pradesh | 1,402 | 290 01 | 1,456 | 300 6 | 136 | 21 9 | 57 | 6 3 |
| Karnataka | 1,978 | 371 4 | 2,060 | 372 3 | 154 | 163 0 | 87 | 7·6 |
| Kerala | 1,458 | 219 1 | 1,487 | 221 3 | 98 | 12 0 | 34 | 3 8 |
| Tamil Nadu | 4,060 | 564 3 | 4,139 | 587 1 | 182 | 22 7 | 84 | 12 6 |
| Pondichery | 81 | 2 9 | 81 | 3·0 | 6 | 0 2 | 2 | 0 2 |
| Total | 8,979 | 1,447 7 | 9,223 | 1,484 3 | 576 | 219 8 | 264 | 30 5 |
| *Western Region* | | | | | | | | |
| Madhya Pradesh | 658 | 84 7 | 672 | 85 9 | 33 | 508·4 | 18 | 1 4 |
| Maharashtra | 10,425 | 1,139·6 | 10,697 | 1,147 3 | 631 | 42 8 | 289 | 37 1 |
| Goa, Daman & Diu | 261 | 28 0 | 273 | 28 2 | 26 | 3·4 | 12 | 0 9 |
| Gujarat | 2,305 | 454·6 | 2,362 | 476 4 | 108 | 67·6 | 62 | 8 0 |
| Dadar & Nagar Haveli | 5 | 0 1 | 5 | 0 1 | — | — | — | — |
| Total | 13,654 | 1707 0 | 14,009 | 1,737 9 | 798 | 622 2 | 331 | 47 4 |
| Grand Total | 46,856 | 9,952 9 | 47,896 | 10,149 4 | 2,649 | 1,525 3 | 1,257 | 137 2 |

TABLE 12·12
GOVERNMENT COMPANIES AT WORK

| As on 31 March | Public No | Public Paid-up capital (Rs crores) | Private No. | Private Paid-up capital (Rs crores) | Total No. | Total Paid-up capital (Rs crores) |
|---|---|---|---|---|---|---|
| 1962 | 41 | 23 5 | 113 | 606 2 | 154 | 629 7 |
| 1965 | 54 | 51 5 | 129 | 1,062 8 | 183 | 1,114 3 |
| 1972 | 107 | 156 0 | 245 | 2,213 1 | 352 | 2,998 1 |
| 1973 | 126 | 219 0 | 264 | 2,779 4 | 390 | 2,998·1 |
| 1974 | 147 | 249 1 | 303 | 4,396 0 | 450 | 4,645 1 |
| 1975 | 210 | 315 4 | 363 | 4,659·6 | 573 | 4,996 0 |
| 1976 | 243 | 468 5 | 408 | 5,653 7 | 651 | 6,122 2 |
| 1977 | 273 | 591 9 | 428 | 6,592 0 | 701 | 7,183 9 |
| As on 30-9-77[1] | 280 | 602 9 | 432 | 6,711 6 | 712 | 7,314 5 |

[1]Provisional

**Foreign Companies**

On 31 March 1977, there were 482 foreign companies in India as defined under Section 591 of the Companies Act, 1956 (that is, joint stock companies incorporated abroad but having a place of business in India). The distribution of these companies, according to their country of origin as on 30 September 1977 was—UK 269, USA 80; Japan 20, West Germany 11 Switzerland and France 8 each; Netherlands and Canada 7 each, Pakistan and Bangladesh 6 each, Hong Kong, and Italy 5 each, Australia and Sweden 4 each, Belgium, Yugoslavia, Uganda, Singapore, Bahama Island and Nepal 3 each, Thailand and Lebanon 2 each and New Zealand, Panama, Sri Lnka, Kenya, Kuwait, Liberia, Luxemboug, Philippines, Tanzania, Iran, Aden, Greece, Malaysia, Barmuda Islands and Norway one each

## INSURANCE

**Life Insurance**

The Life Insurance Corporation of India came into existence on 1 September 1956 The Corporation had 5 zonal offices at Bombay, Delhi, Kanpur, Calcutta and Madras; 41 divisional offices 688 branch/ sub-offices and 11 development centres in India on 31 March 1977

**Business by LIC**

During 1976-77, LIC issued 20 58 lakh new policies assuring Rs 5,119.23 crores. Of the total number of policies, 6 86 lakh policies assuring Rs 575.37 crores were issued in rural areas

**Group Schemes**

In 1976-77, the Corporation did a business of Rs 3,007.21 under 1,045 schemes covering 6,60,780 lives.

The life Insurance business in force at the end of each of the six accounting periods from 1972 is given below .

TABLE 12·13
LIFE INSURANCE TOTAL BUSINESS

| As on 31 March | In India No of policies (lakhs) | In India Sums assured & bonuses (Rs crores) | Out of India No of policies (lakhs) | Out of India Sums assured & bonuses (Rs crores) | Total No. of policies (lakhs) | Total Sums assured & bonuses (Rs crores) |
|---|---|---|---|---|---|---|
| 1972 | 157 11 | 8,082 | 0 88 | 120 | 157 99 | 8,202 |
| 1973 | 167 92 | 9,204 | 8 84 | 121 | 168 76 | 9,325 |
| 1974 | 179 43 | 10,725 | 0 79 | 124 | 180·22 | 10,849 |
| 1975 | 187 47 | 13,185 | 0 75 | 124 | 188 22 | 13,309 |
| 1976 | 196 10 | 16,745 | 0 71 | 124 | 196 81 | 16,869 |
| 1977 | 202 80 | 17,815 | 0·68 | 127 | 203 48 | 17,942 |

On 31 March 1976 the total income of the Corporation after deduction of income tax at source amounted to Rs 925.70 crores of which the premium income accounted for Rs 653 30 crores. The Life Fund stood at Rs 3,952.88 crores on 31 March 1977.

**Investment policy** The investment pattern of the Corporation continues to be governed by the statutory provisions of section 27 A of the Insurance Act, 1938. The government recently reviewed the pattern of investments with special reference to the Corporation's contribution to (i) socially desirable objectives (ii) region-wise distribution and (iii) investment in private corporate sector.

The LIC has to invest, beside investing 25 per cent in central government and another 25 per cent in state governments and other approved securities, at least 25 per cent of the net additions to its controlled Fund in socially oriented sectors, that is, Public/Corporate/OYH Sectors. During 1976-77 out of Rs 544.08 crores of fresh investments, the Corporation invested Rs 289 crores in the socially oriented sectors like housing, electricity, water supply and sewerage schemes. The total investments of the LIC in Public Sector, co-operative sector and private sector amounted to Rs 2,652 85 crores, Rs 409.99 crores and Rs 402.43 crores respectively on 31 March 1977.

**Financing of Housing Schemes** The "Own your Home" scheme is in operation in all places where the Corporation has either a branch office or a sub-office. And also a few selected centres where it does not have any office. During 1976-77 total loans amounting to Rs 12.62 crores were sanctioned under housing schemes. Total loans sanctioned since inception of the scheme was Rs 129 61 crores.

Other schemes for financing house construction include (i) loans to public limited companies for the purpose of providing houses to their employees and (ii) loans to cooperative housing societies of employees of public limited companies and public sector undertakings

The Corporation also grants loans to co-operative sector, housing societies formed by its own employees and also to individual employees for purchase or construction of houses. The Corporation has started construction of a township at Jeevan Bima Nagar at Borivli, a suburb of Bombay where the first phase of 1,985 flats has been completed and the second phase providing 120 flats is under construction. The Corporation has also undertaken the construction of another township at Bangalore and completed 900 flats so far

The total assistance given by the Corporation for the development of housing in India by way of loans to state governments and apex co-operative housing finance societies and loans under other schemes up to 31 March 1977 amounted to Rs 728 56 crores This included expenditure by the Corporation on its own building construction

**Investment** The total book value of the investments of the Corporation at the end of March 1977 amounted to Rs 3,552.11 crores.

**GENERAL INSURANCE** The process of nationalisation of general insurance business, which was initiated with the take-over on 13 May 1971 of the management of the undertakings of Indian and foreign insurers, was completed on 1 January 1973 On that day the shares of Indian insurance companies and the undertakings of other insurers, namely, mutual com-

panies, co-operative societies, the General Insurance Department of the Life Insurance Corporation and foreign insurers, were acquired under the General Insurance Business (Nationalisation) Act, 1972. The law provides for payment of amounts totalling Rs 38.05 crores for the acquisition of these shares and undertakings.

In pursuance of the Insurance Business (Nationalisation) Act, the General Insurance Corporation of India was registered as a government company on 22 November 1972 for the purpose of superintending, controling and carrying on general insurance business. The authorised capital of the Corporation is Rs 75 crores.

On 1 January 1973, the Indian insurance companies became subsidiaries of the Corporation and the undertakings of the remaining insurers were transferred to one or other of these companies. On 1 January 1974 all the nationalised general insurance companies were merged into four subsidiaries of the Corporation The General Insurance Corporation and its subsidiaries have the exclusive privilege of carrying on general insurance business in India. However, some state governments (Gujarat, Karnataka, Kerala and Maharashtra) continue to carry on their existing lines of insurance business in respect of the properties belonging to them and their undertakings, semi-government bodies and boards and also to undertakings in which the state governments have substantial financial interest.

**Janta Insurance Policy**

In keeping with the objectives of nationalisation, a new policy called the Janta Personal Accident Insurance Policy was introduced on 1 April 1976 for granting personal accident insurance cover for a nominal premium of Rs 12 only per annum. Over 17 lakh policies were sold during nine months of its introduction

**Crop Insurance**

The Crop Insurance Schemes operated by GIC, are on an experimental basis, Presently crop insurance has been undertaken on a limited basis in Gujarat, Maharashtra, Andhra Pradesh and Tamil Nadu The crops covered are different varieties of cotton, groundnut and wheat.

On 31 July 1977 the total investment of the Corporation and its subsidiaries stood at Rs. 627 crores.

# 13 PLANNING

Planning in India derives its objectives and social premises from the Directive Principles of State Policy set forth in the Constitution. The public and private sectors of the economy are viewed as complementary. The private sector covers not only organised industry but also small-scale industries, agriculture, trade and a great deal of activity in housing and construction and other fields. Individual effort and private initiative are considered both necessary and desirable, the policy being to assist development on the basis of voluntary co-operation to the utmost extent Economic planning also envisages a growing public sector with massive investments in basic and heavy industries

The Government of India appointed a Planning Commission in 1950 to prepare a blueprint of development, taking an overall view of the needs and resources of the country. The composition of the Commission as in December 1977 was as follows :

| | |
|---|---|
| Morarji R Desai | Prime Minister and Chairman |
| D T. Lakdawala | Deputy Chairman |
| H M Patel | Minister of Finance |
| Charan Singh | Minister of Home Affairs |
| Jagjivan Ram | Minister of Defence |
| B Sivaraman | Member |
| V G Rajadhyaksha | Member |
| Prof Raj Krishna | Member |

## THE FIRST FIVE PLANS

Objectives

The First Five Year Plan (1951-52 to 1955-56) had a two-fold objective to correct the disequilibrium in the economy caused by the Second World War and the partition of the country and to initiate simultaneously a process of all-round balanced development which would ensure a rising national income and a steady improvement in the living standards over a period of time Since the country had to import foodgrains on a large scale in 1951 and there were inflationary pressures in the economy, the plan accorded the highest priority to agriculture, including irrigation and power projects. About 44 6 per cent of the total outlay of Rs 2,069 crores in the public sector (later raised to Rs 2,356) crores was allotted for their development The plan also aimed at increasing the rate of investment from 5 per cent to about 7 per cent of the national income.

In 1954, Parliament declared that the broad objective of economic policy should be to achieve a 'socialist pattern of society' under which the basic criteria for determining the lines of advance would be social gain and greater equality in incomes and wealth and not private profit. The Second Five Year Plan (1956-57 to 1960-61), therefore, sought to promote a pattern of development which would ultimately lead to the establishment of a socialistic society in India In particular, it stressed that the benefits of economic development should accrue more to the relatively less privileged sections of society, and there should be a progressive reduction in the concentration of incomes, wealth and economic power

The main aims of the plan were · (i) an increase of 25 per cent

in the national income; (ii) rapid industrialisation with particular emphasis on the development of basic and heavy industries; (iii) large expansion of employment opportunities, and (iv) reduction of inequalities in income and wealth and a more even distribution of economic power. The plan also aimed at increasing the rate of investment from about 7 per cent of the national income to 11 per cent by 1960-61. The plan laid special stress on industrialisation—increased production of iron and steel, heavy chemicals, including nitrogenous fertilizers and development of heavy engineering and machine building industry.

The Third Five Year Plan (1961-62 to 1965-66) aimed at securing a marked advance towards self-sustaining growth Its immediate objectives were to : (i) secure an increase in the national income of over 5 per cent per annum, and at the same time ensure a pattern of investment which could sustain this rate of growth during subsequent plan periods; (ii) achieve self-sufficiency in foodgrains and increase agricultural production to meet the requirements of industry and exports; (iii) expand basic industries like steel, chemicals, fuel and power and to establish machine-building capacity, so that the requirements of further industrialisation could be met within a period of ten years or so mainly from the country's own resources; (iv) utilise fully the man-power resources of the country and ensure a substantial expansion in employment opportunities; and (v) establish progressively greater equality of opportunity and bring about reduction in disparities of income and wealth and a more even distribution of economic power The national income was to increase by about 30 per cent from Rs 14,500 crores in 1960-61 to about Rs 19,000 crores by 1965-66 (at 1960-61 prices) and per capita income by about 17 per cent from Rs 330 to Rs 385 during the same period.

The situation created by the Indo-Pakistan conflict, two successive years of severe drought, devaluation of the currency, general rise in prices and erosion of resources available for plan purposes delayed finalisation of the Fourth Five Pear Plan Instead, between 1966 and 1969, three Annual Plans were formulated within the framework of the Draft Outline of the Fourth Plan. They took into account the conditions prevailing at the time The state of the economy and the non-availability of financial resources for plan purposes kept down the size of development outlay during this period.

The Fourth Plan (1969-74) aimed at accelerating the tempo of development in conditions of stability and at reducing fluctuations in agricultural production as well as the impact of uncertainties of foreign aid It aimed at raising the standard of living of the people through programmes which at the same time were designed to promote equality and social justice. The plan laid particular emphasis on improving the condition of the less privileged and weaker sections of the society, especially through the provision of employment and education. Efforts were also directed towards reduction of concentration and a wider diffusion of wealth, income and economic power.

The plan aimed at increasing the net domestic product at 1968-69 factor cost from Rs 29,071 crores in 1969-70 to Rs 38,306 crores in 1973-74. In terms of 1960-61 prices, this implied an increase from Rs 17,351 crores in 1968-69 to Rs 22,862 crores in 1973-74 The average annual compound rate of growth envisaged was 5 7 per cent

The Fifth Five Year Plan was formulated at a time when the economy was facing severe inflationary pressures The major objectives

of the plan were to achieve self-reliance and to adopt measures for raising the consumption standards of the people living below the poverty line. The plan also gave high priority to bringing inflation under control and to achieving stability in the economic situation. The Fifth Five Year Plan targetted an annual growth rate of 5.5 per cent in national income. Three annual plans pertaining to the Fifth Five Year Plan period have been completed and the fourth one (1977-78) is under implementation. It was subsequently decided to end the Fifth Five Year Plan with the close of the Annual Plan 1977-78 and to initiate work for a new plan for the next five years with new priorities and programmes.

Outlay and Investment

The public sector outlay as planned in the First, Second and Third Plans was Rs 2,356 crores, Rs 4,800 crores and Rs 7,500 crores while the actual expenditure was Rs 1,960 crores, Rs 4,672 crores and Rs 8,577 crores respectively. The investment by the private sector in the First, Second and Third Plans was Rs 1,800 crores, Rs 3,100 crores and Rs 4,190 crores respectively. The total public sector outlay during the three annual plans was Rs 6,756.50 crores. The Fourth Plan outlay envisaged originally was Rs 24,882 crores. It consisted of the public sector outlay of Rs 15,902 crores (including Rs 13,655 crores investment) and private sector investment of Rs 8.980 crores The actual public sector expenditure during the Fourth Plan is estimated at Rs 15,779 crores. The final Fifth Plan envisaged an outlay of Rs 66,353 crores, of which the public sector outlay was Rs 39,304 crores and the expected private investment was Rs 27,049 crores The anticipated public sector expenditure during the first three years of the Fifth Plan is Rs 19,401 crores.

The public sector outlay during the first four plans and the first three years of the Fifth plan and the financing of plan outlays in the public sector are indicated in Tables 13.1 and 13.2.

Achievements

During the First Plan, owing largely to increase in agricultural production, the national income went up by 18 per cent as against the target of 12 per cent. The increase in the Second Plan was 20 per cent as against the target of 25 per cent In the Third Plan, national income (revised series) at 1960-61 prices rose by 20 per cent in the first four years but declined by 5.7 per cent in the last year. During the three annual plans 1966-67 to 1969-70 there was modest increase in the national income. In the initial years of the Fourth Plan, the growth rate in national and per capita income was quite satisfactory. In the later part of the plan there was slackening in the growth rate As against the projected overall rate of growth of 5.7 per cent per annum during the Fourth Plan, the realised rate of growth is estimated at 4 7 per cent in 1969-70, 4.9 per cent in 1970-71, 1.4 per cent in 1971-72, (—) 0.9 per cent in 1972-73 and 3.41 per cent in 1973-74 The growth rate in national income achieved during the first three years of the Fifth Plan is estimated at 0.2 per cent, 6 0 per cent and 5 2 per cent respectively.

The index of agricultural production at 1950-51 base rose to 122 2 at the end of the First Plan and 148.7 at the end of the Second Plan. In the Third Plan the performance of agriculture was not satisfactory. Widespread drought in 1965-67 slowed down the rate of growth and led to increased imports of food and other items. The index of agricultural production receded to 139 2 in 1965-66 In

TABLE 13 1

PUBLIC SECTOR OUTLAY DURING THE FIRST FIVE PLANS (INCLUDING STATES' SHARES)

(*Rs crores*)

| Head | First Plan Total | Second Plan Total | Third Plan Total | Fourth Plan Total | First 3 years of Fifth Plan |
|---|---|---|---|---|---|
| 1 Agriculture and allied sectors | 290 | 549 | 1,089 | 2,320 | 2,130 |
| | (14 8) | (11 7) | (12 7) | (14 7) | (11 0) |
| 2. Irrigation and flood control | 434 | 430 | 665 | 1,354 | 1,652 |
| | (22 2) | (9 2) | (7 8) | (8 6) | (8·5) |
| 3 Power | 149 | 452 | 1,252 | 2,932 | 3,513 |
| | (7 6) | (9 7) | (14 6) | (18 6) | (18 1) |
| 4 Village and small Industries | 42 | 187 | 241 | 243 | 229 |
| | (2·1) | (4 0) | (2 8) | (1 5) | (1 2) |
| 5. Industry and Minerals | 55 | 938 | 1,726 | 2,864 | 4,976 |
| | (2·8) | (20·1) | (20 1) | (18 2) | (25 6) |
| 6. Transport and communications | 518 | 1,261 | 2,112 | 3,080 | 3,553 |
| | (26 4) | (27 0) | (24 6) | (19 5) | (18 3) |
| 7 Education and Scientific Research | 149 | 273 | 660 | 905 | 799 |
| | (7 6) | (5 8) | (7 7) | (5 7) | (4 1) |
| 8 Health | 98 | 216 | 226 | 336 | 313 |
| | (5·0) | (4 6) | (2 6) | (2 1) | (1·6) |
| 9 Family Welfare | — | — | 25 | 278 | 238 |
| | | | (0 3) | (1 8) | (1 2) |
| 10 Others | 225 | 366 | 581 | 1,467 | 1,998 |
| | (11 5) | (7 9) | (6·8) | (9 3) | (10·4) |
| Total | 1,960 | 4,672 | 8,577 | 15,779 | 19,401 |
| | (100 0) | (100 0) | (100 0) | (100 0) | (100 0) |

NOTE : Figures in brackets represent percentage to total outlay in the plan

TABLE 13·2

FINANCING OF PLAN OUTLAY IN THE PUBLIC SECTOR

(*Rs crores*)

| Item | First Plan | | Second Plan | | Third Plan | | Fourth Plan | |
|---|---|---|---|---|---|---|---|---|
| | Original estimates | Actuals | Original estimates | Actuals | Original estimates | Actual | Original estimates | Latest estimates |
| A. *Mainly through own resources* | 740<br>(35·7) | 725<br>(38·4) | 1,350<br>(28·1) | 1,230<br>(26·3) | 2,810<br>(37·5) | 2,908<br>(33·9) | 7,102<br>(44·7) | 5,475<br>(33·9) |
| 1. Balance from current revenues at pre-plan rates of taxation | 570 | 382 | 350 | 11 | (—)550 | (—)419 | 1,673 | (—)236 |
| 2. Additional taxation including measures to increase the surplus of public enterprises | — | 255 | 850 | 1,052 | 1,710 | 2,892 | 3,198 | 4,280 |
| 3. Retained profits of Reserve Bank | — | — | — | — | — | — | 202 | 296 |
| 4. Surplus of public sector undertakings, exclusive of yield from measures adopted for raising additional resources for the plan | 170 | 115 | 150 | 167 | 550 | 435 | 2,029 | 1,135 |
| (a) Railways | 170 | 115 | 150 | 167 | 100 | 62 | 265 | (—)165 |
| (b) Others | — | — | — | — | 450 | 373 | 1,764 | 1,300 |
| B. *Mainly through domestic borrowings* | 808<br>(39·1) | 1,019<br>(52·0) | 2,650<br>(55·2) | 2,393<br>(51·2) | 2,490<br>(33·2) | 3,246<br>(37·9) | 6,186<br>(38·9) | 8,598<br>(53·2) |
| 1. Loans from the public including state enterprises' borrowing from market and LIC (net) | 115 | 204 | 700 | 756 | 800 | 823 | 2,326 | 3,145 |
| 2. Small savings | 225 | 243 | 590 | 422 | 600 | 565 | 769 | 1,162 |
| 3. Annuity depoits, compulsory deposits, prize bonds and gold bonds | — | — | — | — | — | 117 | (—)104 | (—)98 |
| 4. State provident funds | 45 | 92 | — | 175 | 265 | 336 | 660 | 874 |
| 5. Steel equalisation funds (net) | — | — | 250 | 40 | 105 | 34 | — | — |
| 6. Miscellaneous capital receipts (net) | 133 | 147 | — | 46 | 170 | 238 | 1,685 | 1,455 |
| 7. Deficit financing | 290 | 333 | 1,200 | 954 | 550 | 1,133 | 850 | 2,060 |
| C. *Total domestic resources* (A+B) | 1,548<br>(74·8) | 1,771<br>(90·4) | 4,000<br>(83·3) | 3,623<br>(77·5) | 5,300<br>(70·7) | 6,154<br>(71·8) | 13,288<br>— | 14,073<br>(87·1) |
| D. *External assistance* | 521<br>(25·2) | 189<br>(9·6) | 800<br>(16·7) | 1,049<br>(22·5) | 2,200<br>(29·3) | 2,423<br>(28·2) | 2,614<br>(16·4) | 2,087<br>(12·9) |
| E. *Total resources* (C+D) | 2,069<br>(100·0) | 1,960<br>(100·0) | 4,800<br>(100·0) | 4,672<br>(100·0) | 7,500<br>(100·0) | 8,577<br>(100·0) | 15,902<br>(100·0) | 16,160<br>(100·0) |

*Note* : Figures in brackets are percentages to total

subsequent years, agricultural production increased steadily. In 1970-71 the index number reached 190 6.

Net irrigated area increased from 2.08 crore hectares in 1950-51 to 2.27 core hectares at the end of the First Plan, 2.46 crore hectares at the end of the Second Plan, 2 66 crore hectares at the end of the Third Plan and 2 90 crore hectares in 1968-69. By the end of the Fourth Plan the net irrigated area was 4.22 crore hectares and by 1975-76 the figure is estimated at 4.54 crore hectares

The total installed power generating capacity increased from 24 lakh kw in 1951 to 37 lakh kw at the end of the First Plan, 56 lakh kw at the end of the Second Plan, 1 012 crore kw at the end of the Third Plan and 1.43 crore kw in 1968-69. By the end of the Fourth Plan, the intalled generating capacity had reached 1 86 crore kw. At the end of 1975-76 the generating capacity is estimated at 2.20 crore kw.

The net output in organised manufacturing industries nearly doubled during the first two plans. The share of the public sector industries went up from 1 5 per cent at the beginning of the First Plan to 8 4 per cent at the end of the Second Plan Much of the increase was in key industries such as steel, coal mining and heavy chemicals In the Third Plan, a growth rate of 8 to 10 per cent was maintained in the first four years of the plan, but it declined to 5.3 per cent in the fifth year owing to the dislocation caused by the war with Pakistan and disruption in the flow of foreign aid. The overall annual growth rate for the entire plan period was 8 2 per cent against the target of 11 per cent There was a further reduction in the rate of growth of industrial production in 1966-67 and 1967-68 mainly due to under utilisation of industrial capacity. Even though there were signs of recovery in 1968, the actual growth rate in the industrial sector during the Fourth Plan significantly fell short of the target. The growth rate in industrial production declined from 6 8 per cent in 1969-70 to 3.7 per cent in 1970-71, but increased to 4 5 per cent in 1971-72 and is estimated at about 5 per cent during 1972-73 and 1973-74 The Fifth Five Year Plan envisaged an average annual growth rate of 7 per cent in the industrial sector. However the stresses and strains in the economy kept the growth rate low : 2.5 per cent in 1974-75 and 5.7 per cent in 1975-76

School enrolment rose from 2 35 crores in 1950-51 to 3.14 crores at the end of the First Plan, 4 46 crores at the end of the Second Plan, 6 6 crores at the end of the Third Plan and 7 33 crores in 1968-69 By the end of the Fourth Plan, school enrolment is estimated at 8 75 crores and by the end of 1976-77 at 9.87 crores

# 14 AGRICULTURE

## AGRICULTURE

The agricultural sector contributes nearly one-half of the national income, provides livelihood to about three-fourths of the population, supplies the bulk of wage goods required by the non-agricultural sector and raw materials for a large section of industry. It also provides a substantial portion of the country's exports. Transport, marketing, processing and other aspects of agricultural production and utilization have also a strong bearing on the national economy.

### Land Utilization

Land utilization statistics are available for 30 41 crore hectares or 92.5 per cent of the total area of 32 88 crore hectares.

Table 14.1 gives details of land utilization in India for 1972-73 to 1974-75

TABLE 14 1
LAND UTILIZATION

(crore hectares)

| | 1972-73[1] | 1973-74[1] | 1974-75[1] |
|---|---|---|---|
| Total geographical area | 32 88 | 32 88 | 32 88 |
| Total reporting area for land utilization | 30 40 | 30 41 | 30 41 |
| 1 Forests | 6 54 | 6 57 | 6 56 |
| 2 Not available for cultivation | 1 67 | 1 68 | 1·71 |
| (i) Area put to non-agricultural uses | | | |
| (ii) Barren and uncultivable lands | 2 51 | 2 44 | 2 35 |
| Total | 4·18 | 4 12 | 4·06 |
| 3 Other uncultivated land excluding fallow lands | | | |
| (i) Permanent pastures and grazing lands | 1 27 | 1·28 | 1 29 |
| (ii) Land under tree crops and groves | 0 46 | 0·41 | 0 41 |
| (iii) Cultivable waste | 1 74 | 1 73 | 1 70 |
| Total | 3 47 | 3 42 | 3 40 |
| 4 Fallow Lands | | | |
| (i) Current fallows | 1 52 | 1 15 | 1 65 |
| (ii) Others | 0 93 | 0 88 | 0 91 |
| Total | 2 45 | 2 03 | 2·56 |
| 5 Net Area sown | 13 76 | 14 27 | 13 83 |
| Area sown more than once | 2·45 | 2 68 | 2·55 |
| Total cropped area | 16 21 | 16 95 | 16 38 |

[1]Provisional

### Irrigated Area

Of the net area under cultivation, 24.3 per cent is irrigated. Between 1950-51 and 1973-74, the net irrigated area increased by 1.16 crore hectares as shown in Table 14.2.

TABLE 14 2
AREA UNDER IRRIGATION

(crore hectares)

| Source of irrigation | 1950-51 | 1972-73 | 1973-74[1] | Increase (+) or decrease (—) in 1973-74 over 1950-51 |
|---|---|---|---|---|
| Canals | 0 83 | 1 30 | 1 30 | +0 47 |
| Tanks | 0 36 | 0 36 | 0·39 | +0 03 |
| Wells | 0 60 | 1 30 | 1 32 | +0·72 |
| Other Sources | 0 30 | 0 22 | 0 24 | —0 06 |
| Total | 2 09 | 3 18 | 3 25 | +1 16 |

[1]Provisional

N A —Not available

Agricultural Census

The first country-wide agricultural census, from July 1970 to June 1971 as the reference year, was released on 24 December 1975. This census, carried out on a complete enumeration basis, provides data on the structure of agricultural holdings and their main characteristics Reports giving the census results of 29 states/union territories have been brought out. The All India Report giving the consolidated picture for the entire country has also been released.

According to the census, there are 7.05 crore operational holdings in the country, spread over an aggregate area of 16.2 crore hectares The average size of a holding is 2.30 hectares out of which net area under cultivation is 2.06 hectares. Preponderance of marginal holdings (below one hectare) is one of the dominant features of operational holdings One half of the operational holdings are less than one hectare, 19 per cent between one and two hectares and 15 per cent between two and four hectares. Medium holdings measuring four to ten hectares account for 11 per cent and large holdings measuring ten hectares and above account for four per cent. The aggregate unutilized land available under operational holdings is of the order of 1.24 crore hectares

In view of the immense utility of agricultural census data for formulating appropriate policies and programmes for agricultural development in the country, the Government of India have decided to carry out agricultural census at periodic intervals of time The current Agricultural Census is being conducted on a sample basis with 1976-77 (July 1976 to June 1977) as the reference year. The report is likely to be completed by November 1978

Principal Crops and Area

The two outstanding features of agricultural production are the wide variety of crops and the preponderance of food over non-food crops

Table 14 3 shows the area under major crops during 1950-51, 1960-61, 1970-71, 1975-76 and 1976-77

TABLE 14·3
AREA UNDER PRINCIPAL CROPS

('000 hectares)

| Crops | 1950-51 | 1960-61 | 1970-71 | 1975-76[1] | 1976-77[2] |
|---|---|---|---|---|---|
| Rice | 30,810 | 34,128 | 37,592 | 39,475 | 38,606 |
| Jowar | 15,571 | 18,412 | 17,374 | 16,092 | 15,779 |
| Bajra | 9,023 | 11,469 | 12,913 | 11,571 | 10,730 |
| Maize | 3,159 | 4,407 | 5,852 | 6,031 | 6,054 |
| Ragi | 2,203 | 2,515 | 2,472 | 2,630 | 2,531 |
| Small millets | 4,605 | 4,955 | 4,783 | 4,672 | 4,431 |
| Wheat | 9,746 | 12,927 | 18,241 | 20,454 | 20,863 |
| Barley | 3,113 | 3,205 | 2,555 | 2,802 | 2,217 |
| Total Cereals | 78,230 | 92,018 | 1,01,782 | 1,03,727 | 1,01,211 |
| Gram | 7,570 | 9,276 | 7,839 | 8,320 | 7,856 |
| Tur | 2,181 | 2,433 | 2,655 | 2,671 | 2,534 |
| Other pulses | 9,340 | 11,854 | 12,040 | 13,463 | 12,455 |
| Total Foodgrains | 97,321 | 1,15,581 | 1,24,316 | 1,28,181 | 1,24,056 |
| Potatoes | 240 | 375 | 482 | 622 | 634 |
| Sugarcane | 1,707 | 2,415 | 2,615 | 2,762 | 2,872 |
| Black pepper | 80 | 103 | 120 | 112 | 114 |
| Chillies | 592 | 667 | 783 | 740 | 731 |
| Ginger | 17 | 19 | 22 | 27 | 27 |
| Tobacco | 357 | 401 | 447 | 368 | 432 |
| Groundnut | 4,494 | 6,443 | 7,326 | 7,222 | 6,948 |
| Castor seeds | 555 | 466 | 439 | 375 | 487 |
| Sesamum | 2,204 | 2,169 | 2,433 | 2,170 | 2,165 |
| Rapeseed and Mustard | 2,071 | 2,883 | 3,323 | 3,339 | 3,145 |
| Linseed | 1,403 | 1,789 | 1,897 | 2,119 | 1,924 |
| Cotton | 5,882 | 7,610 | 7,605 | 7,350 | 6,901 |
| Jute | 571 | 629 | 749 | 585 | 739 |
| Mesta | N.A. | 274 | 330 | 330 | 349 |
| Tea | 314 | 331 | 354 | 363 | 364 |
| Coffee | 91 | 114 | 136 | 172 | N.A. |
| Rubber | 58 | 129 | 203 | 224 | 231 |
| Coconut | 622 | 717 | 1,046 | 1,126[2] | N.A. |

[1]Revised estimates.

[2]Final estimates.

N.A.—Not available.

Seasons

There are three main crop seasons, namely, *kharif*, *rabi* and summer. The major *kharif* crops are rice, jowar, bajra, maize, cotton, sugarcane, sesamum and groundnut. The major *rabi* crops are wheat, jowar, barely, gram, linseed, rapseed and mustard. Rice, maize and groundnut are grown in summer season also.

Production

The production of foodgrains, which had risen to the level of 10.8 crore tonnes in 1970-71, declined to 10.5 crore tonnes in 1971-72 and to 9.7 crore tonnes in 1972-73. During the crop year 1973-74, foodgrains production marked a recovery over the previous year but declined again in 1974-75. During 1975-76, foodgrains production again rose and reached the level of 12.1 crore tonnes. In 1972-73 the production of agricultural commodities received a serious set-back on account of widespread drought in large parts of the country, shortage of fertilizers, shortfall in power supply to tubewells and absence of regular water supply from canals.

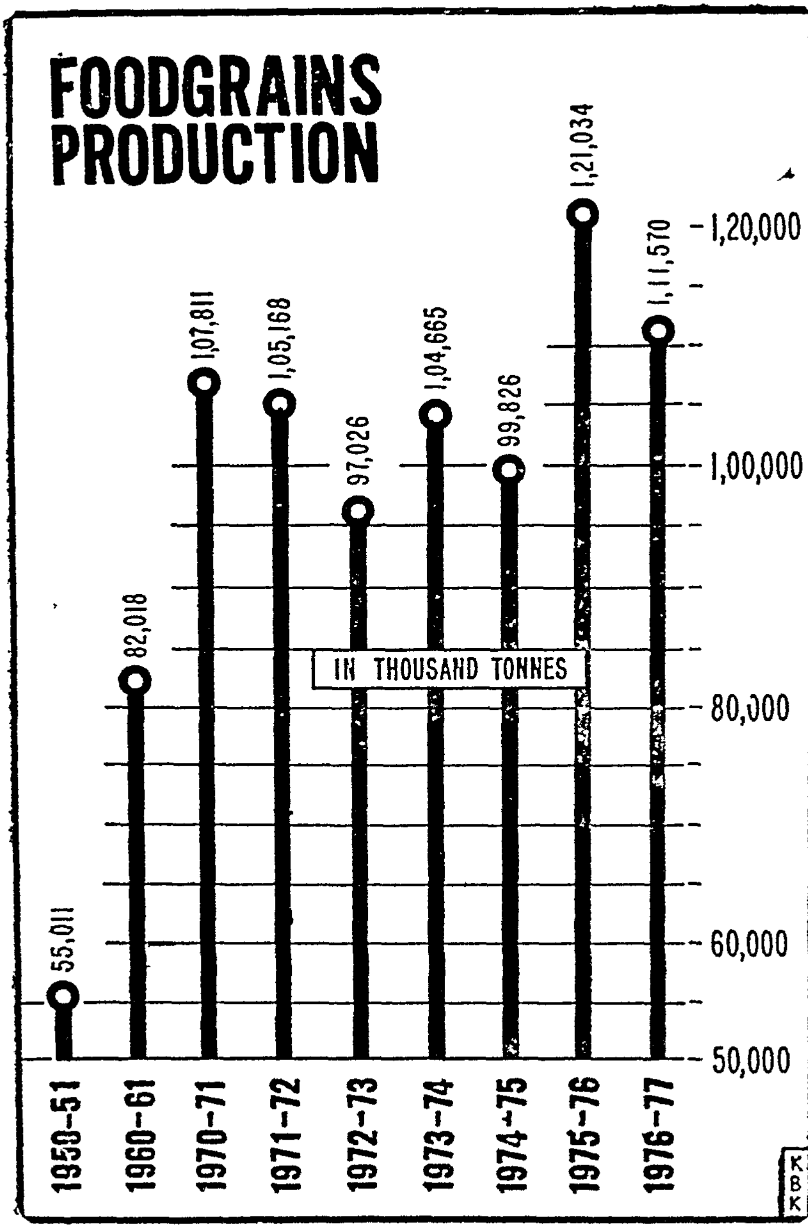

FOODGRAINS PRODUCTION
IN THOUSAND TONNES
55,011
82,018
1,07,811
1,05,168
97,026
1,04,665
99,826
1,21,034
1,11,570
1,20,000
1,00,000
80,000
60,000
50,000
1950-51
1960-61
1970-71
1971-72
1972-73
1973-74
1974-75
1975-76
1976-77
KBK

Table 14 4 shows the production of principal crops in 1950-51 and 1973-74 to 1976-77

TABLE 14 4
PRODUCTION OF PRINCIPAL CROPS

('000 *tonnes*)

| Crops | 1950-51[1] | 1973-74[2] | 1974-75[2] | 1975-76[2] | 1976-77[3] |
|---|---|---|---|---|---|
| Rice (cleaned) | 22,058 | 44,051 | 39,579 | 48,740 | 42,787 |
| Jowar | 6,250 | 9,097 | 10,414 | 9,504 | 10,396 |
| Bajra | 2,680 | 7,519 | 3,272 | 5,736 | 5,728 |
| Maize | 2,357 | 5,803 | 5,559 | 7,256 | 6,257 |
| Ragi | 1,353 | 2,072 | 2,136 | 2,797 | 2,178 |
| Small millets | 1,776 | 1,966 | 1,613 | 1,924 | 1,638 |
| Wheat | 6,822 | 21,778 | 24,104 | 28,846 | 29,082 |
| Barley | 2,518 | 2,371 | 3,135 | 3,192 | 2,296 |
| Total Cereals | 45,814 | 94,657 | 89,812 | 1,07,995 | 1,00,362 |
| Gram | 3,823 | 4,099 | 4,015 | 5,879 | 5,366 |
| Tur | 1,813 | 1,409 | 1,834 | 2,099 | 1,646 |
| Other pulses | 3,561 | 4'500 | 4,165 | 5,061 | 4,196 |
| Total Foodgrains | 55,011 | 1,04,665 | 99,826 | 1,21,034 | 1,11,570 |
| Potatoes | 1,832 | 4,861 | 6,225 | 7,306 | 7,287 |
| Sugarcane (cane) | 70,490 | 1,40,805 | 1,44,289 | 1,40,604 | 1,54,023 |
| Black pepper | 20 | 29 | 28 | 26 | 32 |
| Chillies (Dry) | 358 | 497 | 441 | 526 | 412 |
| Ginger (Dry) | 14 | 38 | 38 | 45 | 4 |
| Tobacco | 257 | 462 | 363 | 350 | 414 |
| Groundnut (Nuts in shell) | 3,319 | 5,932 | 5,111 | 6,754 | 5,262 |
| Castorseed | 107 | 229 | 210 | 143 | 172 |
| Sesamum | 422 | 485 | 392 | 479 | 404 |
| Rapeseed and mustard | 768 | 1,704 | 2,252 | 1,936 | 1,562 |
| Linseed | 364 | 504 | 564 | 598 | 431 |
| Cotton (Lint) ('000 bales)[7] | 3,039 | 6,309 | 7,156 | 5,950 | 5,781 |
| Jute (Dry fibre) ('000 bales)[4] | 3,497 | 6,220 | 4,471 | 4,440 | 5,347 |
| Mesta (Dry fibre) ('000 bales)[4] | 659 | 1,456 | 1,363 | 1,474 | 1,738 |
| Tea | 275 | 472 | 489 | 487 | 512 |
| Coffee | 25[5] | 86 | 93 | 84 | 103 |
| Rubber | 145 | 125 | 130 | 138 | 150 |
| Coconut (crore nuts) | 358[5] | 585 | 603 | 612[3] | N A |

[1]Adjusted
[2]Revised estimates
[3]Final Estimates
[4]180 kg each
[5]Unadjusted figures
[6]Provisional
[7]170 kg each
N A —Not available

PLAN EXPENDITURE

High priority has been accorded to agriculture and the Fifth Plan envisages an oulay of Rs 4,644 crores for agriculture and allied programmes as compared to the actual expenditure of Rs. 2,320 crores during the Fourth Plan period The actual expenditure during the Fourth Plan, the revised outlay for the Fifth Plan, the actual expenditure during 1974-75 and 1975-76 and approved outlay for 1976-77 are shown in the table 14 5

TABLE 14 5
OUTLAYS AND EXPENDITURE ON AGRICULTURAL PROGRAMMES

(Rs crores)

| Head of Development | Fourth Plan (actual expenditure) | Revised Fifth Plan outlay | 1974-75 (actual expenditure) | 1975-76 (actual expenditure) | 1976-77 approved outlay) |
|---|---|---|---|---|---|
| Agriculture including Land Reforms | 779 0 | 1484 7 | 148 9 | 194 1 | 298 ·2 |
| Minor Irrigation | 510 4 | 792 3 | 128 5 | 137 0 | 154 0 |
| Soil Conservation | 163 6 | 221 1 | 39 6 | 42 0 | 40 6 |
| Command Area Development | 46 4 | 206 6 | 22 8 | 29 1 | 34 1 |
| Food | 3 7 | 123 5 | 7 4 | 12 0 | 27 0 |
| Animal Husbandry and Dairying | 135 4 | 437 7 | 35 5 | 57 5 | 83 1 |
| Fisheries | 53 0 | 150 0 | 15 5 | 18 2 | 26 4 |
| Forests | 88 5 | 205 7 | 25 0 | 29 3 | 37 7 |
| Investment in Agril Financial Institutions | 185 6 | 519 8 | 66 2 | 80 6 | 93 6 |
| Community Development | 115 2 | 127 ·5 | 29 9 | 30 5 | 22 2 |
| Cooperation | 239 6 | 375 7 | 44 4 | 81 8 | 79 3 |
| Total Agriculture and Allied Sectors including Co-operation | 2320 4 | 4643 6 | 563 7 | 712 1 | 896 2 |

Agriculture includes agricultural research and education, crop husbandry, storage and marketing, buffer stocking and special programmes for rural development

FOOD SITUATION

Due primarily to the record harvest of foodgrains during 1975-76 and a near normal crop in 1976-77, the food situation during the two years was characterised by plentiful supplies at reasonable prices, reduced pressure on public distribution system, particularly during 1975-76, and a substantial increase in stocks with the government

The production of foodgrains, which fluctuated between 9 7 and 10 5 crore tones during the years 1971-72 to 1974-75 touched the all-time high of 12.1 crore tonnes in 1975-76 During 1976-77, production declined by 7.8 per cent to 11 16 crore tonnes from the record level achieved in the preceding year but it was still the second highest on record

On account of the record production of foodgrains in 1975-76 and the anti-inflationary measures taken by the government, there was a significant fall in the prices of foodgrains from September 1974 onwards. The all-India index number of wholesale prices of foodgrains (base : 1970-71=100) which stood at 211 8 in September 1974, dropped by 32 1 per cent to 143.8 in May 1976 There was a rise in prices during June-July, 1976 but thereafter foodgrains prices ruled more or less steady till November 1976 During the period December 1976 to February 1977, there was a rise in the prices of foodgrains, especially pulses Between November 1976 and February 1977, the wholesale prices of pulses recorded a rise of 20 4 per cent, while those of cereals rose by 3 6 per cent. Foodgrains prices registered a fall in March-April, 1977 The all-India index number of wholesale prices of foodgrains recorded a fall of 2.0 per cent from 162.6 in February to 159.1 in April There was again a rise in the prices of foodgrains during May-July, 1977 Between April and July, 1977, the all-India index number of wholesale prices of cereals moved up by 3.8 per cent, while the index for pulses rose by 13 7 per cent However, a downward

trend in the prices of cereals has been in evidence since the beginning of August 1977. The all-India index number of wholesale prices of cereals which stood at 166.6 at the end of July 1977 dropped by 1.4 per cent to 164.2 during the week ended 24 September, while that of pulses rose by 17.3 per cent from 195.4 to 229.3. As a result of steep rise in the prices of pulses, the all-India index number of wholesale prices of foodgrains recorded a rise of 2.2 per cent from 171.4 at the end of July 1977 to 175.2 during the week ended 24 September 1977.

Foodgrains Policy

During the 1975-76 rabi marketing season, the system of open market purchases by public agencies at the procurement price of Rs 105 per quintal for all varieties of wheat was reintroduced and the 50 per cent levy on purchases by the licensed dealers in the surplus states imposed during the 1974-75 season was withdrawn However, in order to maximise procurement, an incentive bonus scheme for supply of wheat to the central Pool was introduced For the 1976-77 rabi season the procurement price of wheat was maintained at Rs 105 per quintal for all varieties and the incentive bonus scheme introduced during 1975-76 season was continued The issue price of wheat released from the Central Pool for public distribution was retained at Rs 125 per quintal During the 1977-78 rabi marketing season, the procurement price of wheat of all varieties has been raised to Rs 110 per quintal. The incentive bonus scheme on wheat has been discontinued. The issue price of wheat released from the Central Pool has been maintained at Rs 125 per quintal. The zonal restrictions on the movement of wheat and wheat products have been withdrawn and there is now free movement of wheat and wheat products from one part of the country to another.

For the kharif marketing season 1977-78, the procurement price of coarse variety of paddy which was Rs 74 per quintal previously has been raised to Rs 77 per quintal All restrictions on the movement of rice and paddy from one part of the country to another have been withdrawn. The issue price of rice from the Central Pool has not been increased No targets have been fixed for procurement of rice and the bonus scheme for supply of rice to the Central Pool has been discontinued

Procurement

During 1975-76 and 1976-77, vigorous efforts were made to maximise procurement both in surplus and deficit states with the twin objectives of meeting the requirements of public distribution system and building up buffer stocks. Procurement of foodgrains out of the 1975-76 crop was 1 06 crore tonnes, consisting of 63 lakh tonnes of rice, 40 lakh tonnes of wheat and 3 lakh tonnes of coarse grains Out of this, 76 lakh tonnes (40 lakh tonnes of rice and 36 lakh tonnes of wheat) were contributed to the Central Pool.

Out of the 1976-77 crop, the procurement of wheat was 66 lakh tonnes, of rice (upto 15-10-77) 44 lakh tonnes and coarse grains 2 lakh tonnes Out of this, 80 lakh tonnes (29 lakh tonnes of rice and 51 lakh tonnes of wheat) were contributed to the Central Pool.

During the rabi season 1977-78, the procurement of wheat has generally been under price support operations so as to protect the interest of the cultivators. Till the middle of September, the quantity of wheat procured was 52 lakh tonnes.

**Public Distribution**

In view of the increase in the market availability of foodgrains, offtake from the public distribution system declined from 1 13 crore tonnes in 1975 to 92 lakh tonnes in 1976. The increased procurement, coupled with the fall in offtake from the public distribution system, has brought about a significant increase in government's stocks

Several measures have been initiated to increase the offtake of food grains from the public distribution system, keeping in view the need to check the prices in the open market as well as the need to turnover stocks with the public agencies. The public distribution has started picking up. During the first 8 months of 1977, a quantity of 76 lakh tonnes of foodgrains was distributed through the public distribution system as compared to 56 lakh tonnes during the corresponding period of the previous year.

**Import of Foodgrains**

The central government imported 65 15 lakh tonnes of foodgrains in 1976 as against 74 07 lakh tonnes in 1975 During 1977, upto the end of September, the quantity of foodgrains imported was 4 92 lakh tonnes Table 14 6 shows the import of cereals into India since 1972

TABLE 14 6
IMPORT OF CEREALS

('000 tonnes)

| Cereals | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 (up to 30-9-77) |
|---|---|---|---|---|---|---|
| Rice | 131 | — | — | 130 | 149 | — |
| Wheat | 314 | 2,414 | 4,203 | 7,016 | 5,832 | 492 |
| Other Cereals | — | 1,200 | 671 | 261 | 534 | — |
| TOTAL | 445 | 3,614 | 4,874 | 7,407 | 6,515 | 492 |

**Rationing**

Statutory rationing continued to be in force in Calcutta and Asansol-Durgapur group of industrial towns in West Bengal but has been discontinued in the city of Bombay in Maharashtra Rationing in Calcutta and Asansol-Durgapur group of towns is of rice and wheat only. Informal rationing of foodgrains continues in other areas, including Bombay City

The total number of fair price shops and ration shops in the country, according to the reports received upto the end of September 1977, was 2.46 lakhs.

**Price Policy**

Fixation of minimum support prices and procurement prices has been an essential feature of the central government's policy for the past several years. Minimum support prices are in the nature of a long-term guarantee to the producers for the government is committed to enter the market to make purchases at that price and prevent a fall of prices below that level These prices are generally announced before the start of the sowing season. However, in view of the policy of purchasing all quantities of fair average quality of foodgrains offered for sale at procurement prices announced by the government, it was not considered necessary to announce the minimum support prices for kharif cereals and for wheat for 1975-76 season. For the 1976-77 rabi marketing season also, minimum support prices of wheat were not fixed

However, in view of considerable fall in the prices of barley and gram, the government decided to undertake price support operations for barley and gram and fixed a support price of Rs 65 per quintal for barley and Rs 90 per quintal for gram.

Procurement prices are meant essentially for the purchase of quantities needed by the government for maintaining the public distribution system and for building up the buffer stock. In order to provide greater incentive to producer, the government has, however, been purchasing since 1968 all quantities of foodgrains of fair average quality offered for sale at procurement prices. Procurement prices for the 1976-77 kharif and rabi marketing seasons were maintained at the levels obtained in the previous seasons.

The procurement price for wheat for the 1977-78 marketing season has been increased from Rs 105 to Rs 110 per quintal. For paddy, the procurement price for the Kharif marketing season 1977-78 has been increased by Rs 3 per quintal and has been fixed at Rs 77 for coarse variety, with similar increases in the corresponding prices of other varieties. The price of rice is to be derived on the basis of this enhanced paddy price. With a view to giving a fillip to the production of gram, the support prices for the coming Rabi season have already been announced and there is a steep increase from Rs 90 per quintal to Rs 125 per quintal.

The Agricultural Prices Commission set up in 1965 advises the central government on price policy for agricultural commodities, particularly paddy and rice, wheat, jowar, bajra, maize, sugarcane, oilseeds, cotton and jute. The objective is to evolve a balanced and integrated price structure in the perspective of overall needs of the economy and the interests of producers and consumers.

**Buffer Stock**

With a view to imparting stability to the country's food economy, government decided to build a buffer stock of 70 lakh tonnes of foodgrains during the Fourth Five Year Plan By the end of June 1972 government had a total stock of 88 lakh tonnes. The increased distribution of foodgrains from the later half of 1972 onwards, despite increase in imports during 1973, 1974 and 1975, led to considerable depletion of stocks. However, due to larger procurement of wheat and kharif cereals out of the 1975-76 crop and the imports made during the year coupled with the decline in off-take from the public distribution system, the stock position of foodgrains with the Government improved significantly. The total physical stocks with the central and state governments at the end of August 1977 were about 1.9 crore tonnes as against 1 7 crore tonnes at the end of August 1976

**Storage**

Storage and warehousing capacity in the public sector built by the Food Corporation of India (FCI), Central Warehousing Corporation (CWC) and State Warehousing Corporations (SWCs) is essentially located in towns and cities, and the storage at the rural level is undertaken through cooperatives. Apart from this, state governments also build storage capacity. The capacity built in the public sector is on scientific lines and storage losses are almost negligible. Under the three tier system of warehousing, centres of all-India importance are normally earmarked for construction of capacity by the CWC, those of state and district level importance by the SWCs and those at taluk/village level by the cooperatives. The capacity built by the FCI is mainly for storage of foodgrains, while that of the CWC and SWCs is for storage of various

commodities, including foodgrains. Farmers, traders, marketing associations and any member of the public can make use of the warehousing facilities by payment of nominal storage charges. Increasing use is being made of the storage space available with the warehousing corporations by members of the public and it has been possible to avoid losses in storage by scientific techniques of storage and continuous anti-pest treatment given to the commodities during such storage.

The Union Department of Food, apart from releasing funds for construction activities of FCI and CWC, also determines the centres where the capacity is to be built and monitors such programmes. This is done through the Central Storage Committee which ensures that there is no duplication of construction effort as between different agencies. Likewise, there are state-level coordination committees which take care of such programmes at the state level.

At the village level, however, it is the cooperatives which build storage capacity of small sizes which are taken advantage of by the rural community. Under the National Cooperative Development Corporation sponsored scheme of cooperative storage, assistance is available from the Corporation to state governments for construction of godowns of service cooperatives and marketing and processing societies This is to enable them to improve and expand their business activities in marketing of agricultural produce, distribution of agricultural inputs and supply of consumption articles in rural areas.

**Save Grain Campaign**

Since the storage losses at the rural/traders level are known to be substantial due to orthodox and conventional methods of storage, government is tackling the problem through a network of regional offices of the Save Grain Campaign scheme The scheme aims at educating the rural community in saving losses by training, demonstration and publicity at the grass-root level Simple but effective methods of storage of foodgrains and their proper maintenance by treatment with simple chemicals, are being canvassed Very small size bins are being fabricated and distributed through state government machinery to the farming community on easy credit basis This has proved very popular in controlling storage losses.

The activities of the Save Grain Campaign at the field level are supported by the Indian Grain Storage Institute at Hapur which conducts research regarding various aspects of grain storage, preservation, handling, development of suitable storage structures, training of trainers, and screening of cheap and effective insecticides, fumigants, etc It is open to any member of the public to approach the institute or its sub-stations at Ludhiana in Punjab and Bapatla in Andhra Pradesh for securing any assistance in the matter of storage of foodgrains.

**Quality Control**

For quality control there are two laboratories in the Department of Food One of these laboratories known as Central Grain Analysis Laboratory analyses consignment samples of imported as well as indigenously procured foodgrains to determine whether their quality conforms to the prescribed specifications and grain standards. Samples of wheat products drawn by the state governments are also tested in this laboratory During 1976-77, 6,980 samples of foodgrains and wheat products were received and analysed in this laboratory.

The other laboratory known as the Food Analysis Laboratory has branches at Delhi, Bombay, Calcutta and Madras. These laboratories examine and test samples of Balahar, Modern Bread, a variety of fruit

and vegetable products and canned foods for the Army Purchase Organisation of the Department of food, foods used for feeding programmes of Social Welfare Department and state governments and samples drawn under the "Food Products Order" for enforcing standards of quality for internal consumption as well as for export. During 1976-77, 3,600 samples of different foodstuffs as well as raw material used for production of nutritious foods were analysed in these laboratories. For quality control under the Fruit Products Order, besides the laboratories set up by the Department of Food, arrangements have also been made for tie-up with independent laboratories of the Central Food Technological Research Institute, Mysore and Jadavpur University, Calcutta, etc., particularly for export inspection. The Department of Food has also posted inspecting officers in the factories which export fruit products abroad to ensure uniformity and proper quality of the product.

**Nutrition**

India is one of the first countries which recognised the need for intersectoral food and nutrition planning and integration of food and nutrition in national development. The programmes taken up by the Department of Food to improve the nutritional status of the people include nutrition education, increased availability of nutritious food, production of nutritious food for feeding programmes for vulnerable sections and fortification of foods.

A quantity of 14,500 tonnes of Balabar, a nutritious food, was produced from 1 April to 30 September, 1977 for use in government feeding programme. Also 12 lakh litres of miltone (a protein-isolate toned milk base on groundnut) and 117 tonnes of weaning food were produced. Experimental study on an important project for the fortification of salt is under progress. Nutrition education and extension activities were undertaken through a fleet of mobile vans, community canning centres and participation in exhibitions and fairs.

**Food Processing**

Strict quality control on fruit and vegetable industry is exercised under the Fruit Products Order. The factories are helped in exporting fruit and vegetable products by giving technical advice as well as posting field inspectors to ensure uniform quality. The Department of Food has initiated action for setting up a bottling plant in Delhi for providing fruit juices at reasonable rates to the consumers. For training housewives and encouraging preservation of fruits and vegetables on a domestic scale, a large number of Community Canning and Fruit Preservation Centres have been set up.

Other food processing programmes include modernization of rice mills. A consultancy cell has been set up for giving technical advice and guidance to entrepreneurs for modernization of their existing mills and also for setting up modern mills. Small capacity modern mills have also been developed for replacing hullers Three extension centres have been set up in Andhra Pradesh, Tamil Nadu and Uttar Pradesh for extension and demonstration of modern technology.

Four Institutes of Catering Technology and Applied Nutrition and 11 Food Craft Institutes are functioning in various parts of the country which provide training in the field of Hotel Management, Catering and Nutrition and also in the various foodcrafts. At present 2,500 candidates are undergoing training in these Institutes.

**Food Corporation of India**

The Food Corporation of India (FCI) was set up in 1965 under an Act of Parliament. It serves the nation in the vital areas of procure-

ment, distribution, storage and movement of foodgrains. It also performs other diversified activities such as rice milling, production of nutritious processed foods and wholesale distribution of levy sugar. Since 1 March 1976 the Corporation has been working as 'Principals' for handling, clearance and distribution of imported fertilizers.

The FCI has set up 25 modern rice mills in various states to increase the availability of rice and extract oil from rice bran The Corporation also produces Balahar, a protein-rich food for children A solvent extraction plan at Ujjain produces groundnut oil and edible groundnut flour for use in Balahar. It has also set up a solvent extraction plant at Sambanarkoil (Tamil Nadu) for the manufacture of edible and industrial grade oil from rice bran Its Maize Mill at Faridabad (Haryana) manufactures a variety of maize products A dal mill has also been set up at Lucknow to meet the requirement of Army Purchase Organisation.

The Corporation had a total storage capacity of 1 95 crore tonnes as on 1 September 1977 Its turnover (purchase plus sales) in 1976-77 was over Rs 4,000 crores.

**Central Warehousing Corporation**

The Central Warehousing Corporation acquires and builds godowns and warehouses for storage of agricultural produce, inputs, implements and notified commodities offered by individuals, cooperative societies and other institutions.

The storage capacity with the Corporation on 1 September 1977 was 27 3 lakh tonnes (15 lakh tonnes owned, 5 lakh tonnes CAP Cover and Plinth storag eand 7 3 lakh tonnes hired).

The Corporation has also recently entered the field of bonded or export warehouses at Bombay, Calcutta, Cochin, Madras and New Delhi to enable exporters/importers to keep their commodities in good condition pending transhipment The total capacity as on 1 October 1977 was 47 thousand tonnes, another 30 thousand tonne capacity is under construction.

## DEVELOPMENT PROGRAMMES

Under the new strategy adopted in 1966-67, agricultural development programmes have been revised to meet the needs of the farmer. Arrangements for the production and supply of improved seeds, particularly of the high yielding varieties, have been strengthened Efforts are being made to bring science and technology closer to the farmer. The supply of inputs and institutional credit for agricultural requirements are being constantly stepped up Since growth with social justice is one of the important objectives of the planned development, special emphasis has been laid on programmes for the uplift of the weaker sections of rural population, particularly the small and marginal farmers, agricultural labourers, farmers in drought-prone areas, tribal areas and hill areas. The targets and achievements of principal agricultural development programmes are dealt with briefly in the following paragraphs.

**IADP**

The Intensive Agricultural District Programme (IADP), popularly known as the 'package programme', was started on a pilot basis in 1961 in seven selected districts and subsequently extended to some other districts The programme aims at combining technical knowhow, credit and production supplies for stepping up agricultural production, and has yielded significant results At present it is in operation in the state sector in 37 districts in Assam. Andhra Pradesh, Bihar, Gujarat,

Haryana, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Orissa, Punjab, Tamil Nadu, Uttar Pradesh and West Bengal.

**Multiple Cropping**

The multiple cropping programme, initiated in 1967-68, aims at increasing the cropping intensity of land through better utilization of the existing irrigation facilities as well as the development of new irrigation potential throughout the country The coverage during the first two years was 37 4 lakh hectares and 60 lakh hectares respectively Under the Fourth Plan a target of additional 90 lakh hectares had been fixed and it has been achieved The anticipated gross cropped area during 1975-76 is estimated at 17.1 crore hectares. The target of gross cropped area for 1976-77 was 17.3 crore hectares. The centrally-sponsored scheme of pilot-projects for multiple cropping initiated in 1971-72 has been discontinued from 1974-75. In view of the success achieved in organising pilot projects, some state governments like Andhra Pradesh, Gujarat, Himachal Pradesh. Karnataka, Nagaland, Delhi, Dadra and Nagar Haveli are continuing the scheme under the state sector

**High Yielding Varieties**

The progressive increase in area under high yielding varieties since 1966-67 has resulted in substantial increase in foodgrains production Wheat production has more than doubled and rice production has been steadily increasing. The progress under maize, jowar and bajra is rather slow mainly due to lack of suitable hybrids and incidence of pests and diseases

The target of coverage of 2 5 crore hectares under the high yielding varieties of rice, wheat. maize, jowar and bajra under the Fourth Plan was exceeded The coverage during 1974-75 and 1975-76 was around 2.7 crore hectares and 3.2 crore hectares respectively. The coverage during 1976-77 is estimated at 3.4 crore hectares. The target for 1977-78 has been fixed at 3.7 crore hectares.

During 1976-77, a national campaign was launched for raising the productivity of rice This includes balanced use of fertilizer, intensification of plant protection measures, intensive training programme for the farmers, identification of suitable varieties for different areas through minikit programme, timely planting of high yielding varieties raising of nurseries at tubewell points with a subsidy of Rs 400 per hectare and supply of seedling to farmers having no irrigation facilities. In addition, a new central sector scheme for demonstrations and popularisation of the simple improved implements for line sowing and inter cultivation is being implemented.

In the case of wheat, a central sector scheme of minikit programme and a special scheme for replacement of rust susceptible wheat varieties in the northern and southern hill areas are being implemented from 1974-75 Other measures for increasing wheat production in the country include popularisation of high yielding varieties of wheat, adoption of recommended package of practices by the majority of farmers and extensive education of farmers.

A new scheme for pilot projects on jowar has been sanctioned in the states of Madhya Pradesh and Maharashtra Block demonstrations in Karanataka have also been undertaken since 1976-77.

The production of maize is sought to be stepped up by concentrating efforts in the intensive maize producing districts in the country

Soil and Water Conservation

By the end of 1975-76 an area of about 190 lakh hectares of agricultural land was treated with soil conservation practices and about 20 lakh hectares of non-agricultural land was put under afforestation and grass and development with a total expenditure of Rs 422 crores. Watershed management programme in the catchments of 26 major river valley projects was also carried out with a view to prolonging the life of these reservoirs by reduction in sedimentation Since 1974-75 the work is being carried out in 222 small watersheds of size 2,000 to 4,000 hectares for completely saturating the area of each watershed with conservation treatments Under this programme an area of 11 lakh hectares of agricultural and non-agricultural land has been treated at a total cost of Rs 55 crores The soil conservation work is a rural employment programme which has generated 150 crore man days of rural employment in the country so far.

Fertilizers

During 1976-77, the total consumption of fertilizers was 34.11 lakh tonnes as compared to 28 94 lakh tonnes during 1975-76. The consumption of nitrogenous fertilizers was 24 57 lakh tonnes, of phosphatic fertilizers 6 35 lakh tonnes and of potassic fertilizers 3.19 lakh tonnes as against 21.49 lakh tonnes, 4 67 lakh tonnes and 2.78 lakh tonnes respectively during 1975-76.

With a view to encouraging the consumption of fertilizers in the country, prices of major fertilizers were reduced thrice during 1975-76 and twice in 1976-77 The last reduction was effected on 8 February 1977. For phosphatic fertilizers, a support scheme in the shape of subsidy is in operation since 16 March 1976 Other measures taken to boost the consumption of fertilizers included vigorous promotion campaigns, taking of fertilizers to the points nearest to the consumption centres, improvement of credit facilities, opening of more retail points, etc

A scheme to amend acidic and alkali soils in certain compact areas of the country has been undertaken as part of the Fifth Plan at an outlay of Rs 10 crores It is proposed to reclaim 1 3 lakh hectares of acidic soils and 64 000 hectares of alkali soils under the schemes

Manures

For the development and utilisation of local manurial resources. schemes for urban compost, sewage and sullage utilisation. rural compost and green manuring, mechanical compost plants, and gobar gas plants are in operation During 1976-77, urban compost production is estimated at 52 lakh tonnes as against 48 lakh tonnes in the previous year.

It is planned to set up 35 compost plants during the Fifth Plan period. Two compost plants, one each at Ahmedabad and Baroda. have already been commissioned In addition, 17 projects have been sanctioned for implementation during 1976-77 and 1977-78 Rural compost production during 1976-77 is estimated at 19.5 crores tonnes against 18 5 crore tonnes during 1975-76. The Fifth Plan target is 35 crore tonnes.

The present coverage under green manuring is of the order of 60 lakh hectares

The area under sewage irrigation in 1974-75 was about 24,000 hectares It is programmed to double this area by the end of the Fifth Plan The Fifth Plan envisages establishment of one lakh

gobar gas plants in the country. About 45,000 gobar gas plants were set up during 1974-75, 1975-76 and 1976-77.

Quality Seeds

For the suply of quality seeds, the Government of India set up two public sector undertakings, the National Seeds Corporation (NSC) in 1963 and the State Farms Corporation (SFC) in 1969. Under the National Seed Project, initiated with World Bank assistance in 1976, the states of Andhra Pradesh, Haryana, Maharashtra and Punjab have established State Seed Corporations, while Bihar, Karnataka, Orissa, Rajasthan and Uttar Pradesh are doing so shortly. With the establishment of the State Corporations, NSC has been largely relieved of production of cereal crop seeds, and can concentrate on inter-state marketing, export to foreign countries, production of vegetable seeds, etc

The provision of Seeds Act, 1966 have been enforced in all the states and union territories from October 1969 State Seed Certification Agencies have been set up in Andhra Pradesh, Haryana, Punjab, Uttar Pradesh, Maharashtra, Karnataka, Gujarat, West Bengal, Assam, Tamil Nadu, Rajasthan, Madhya Pradesh, Orissa and Bihar. To safeguard quality at the various stages, seed testing laboratories are functioning in states. For co-ordination between the State Agencies and to ensure uniformity, the Central Seed Certification Board has been set up

The State Seed Corporations of Andhra Pradesh, Haryana, Maharashtra and Punjab produced about 1,50,000 quintals in Rabi 1976-77 season, comprising of wheat, jowar, maize, bajra and paddy.

The SFC produced 2 35 lakh quintals of quality seeds in 1976-77.

It was decided to close the Central State Farm at Khammam from 1 April 1977 as it was economically not viable.

The National Seeds Corporation produced 30,755 29 quintals of foundation seeds and 7,11,693 07 quintals of certified seeds during 1975-76 Keeping in view the utmost importance of timely availability of seeds to the farmers, the corporation has established a network of 2,090 seed dealers and 83 sale points all over the country. Its total turn over rose from Rs 1,622 20 lakh in 1974-75 to Rs 2,223.73 lakhs in 1975-76 It registered a net profit of Rs 71.70 lakh in 1974-75.

The Corporation has taken up a scheme aimed at the maintenance of reserve stocks of seeds with financial assistance to the extent of Rs 3 crores from the Centre to meet unanticipated demand for seeds The Corporation in collaboration with the ICAR and selected agricultural universities is taking up a project for production of breeder and foundation seeds of vegetables at an outlay of Rs 1 crore. The National Seeds Project with sub-projects in half a dozen major seed producing states is being set up with World Bank assistance for the production and distribution of certified seeds

The implementation of the Seeds Act, 1966 is being pursued more vigorously Almost all the states and union territories have set up state seed sub-committees under the Act to review the progress of various seed programmes in the states In order to regulate the quality of seeds nearly 289 varieties of different crops were notified under the Act during 1975-76. In addition, 11 new high yielding varieties comprising two each of wheat, paddy, forage, sorghum and one each of rye and maize and three of bajra were released for general cultivation in various parts of the country

**Plant Protection**

The anticipated consumption of pesticides in terms of technical grade material during 1976-77 was about 49,874 tonnes as against the consumption of 44,509 tonnes during 1975-76 The target for 1977-78 has been fixed at about 60,000 tonnes

Under the centrally sponsored Endemic Area Scheme, an area of 8 86 lakh hectares (4 69 lakh hectares by aerial spraying and 4 17 lakh hectares by ground spraying) was covered during 1976-77 as against an area of 4 17 lakh hectares (2 53 lakh hectares by aerial spraying and 1.64 lakh hectares by ground spraying) during 1975-76.

**Agro-Industries Corporation**

Agro-Industries Corporations have been set up in 17 states as state sector undertakings with share capital contributed almost equally by the centre and states The corporations were initially mainly engaged in the distribution of tractors and other items of agricultural machinery, setting up of machinery hiring centres and repair workshops and supply of other agricultural inputs They have diversified their activities to other fields like manufacture of agricultural implements and machinery, spare parts for tractors, processing of fruit and vegetable products, setting up of cattle and poultry feed plants, oil extraction plants, compost plants for the manufacture of organic manures, maize milling complex, NPK granulated fertilizer manufacturing plants, projects on agricultural aviation, pesticides formulation plants, fisheries project and processing of fish products, nylon net manufacturing plants for promoting fishing industry, setting up of cold storages, etc Among the notable achievements made by the corporations are the taking up of an integrated project for the development of horticultural industry by the Himachal Pradesh Agro with the World Bank assistance, plant protection services through agricultural aviation by the Haryana Agro and taking up consultancy services for the establishment compost plant by the Gujarat Agro Industries Corporation.

***Agro-Service Centres***

The scheme for training and financial assistance to entrepreneurs and for setting up of Agro-Service Centres (ASC) was formulated in December 1971 with the twin objectives of providing self employment opportunities to educated technical personnel, including ex-servicemen with adequate experience in agriculture/industry and providing the much needed technical services to the farming community in the rural areas During the Fourth Plan period, it was envisaged to set up 2,500 ASCs against which 1,174 centres were actually established. During the Fifth Plan period, it is proposed to establish 2,500 additional agro-service centres and also provide training to 2,500-3,000 entrepreneurs. By the end of September 1977, 4,788 entrepreneurs completed training and 2,950 Agro-Service Centres were established since the inception of the scheme

**Drought Prone Area Programme**

DPAP (formerly known as Rural Works Programme) was set up in 1970-71 in the non-Plan central sector. Subsequently the programme was reoriented on the basis of an area development approach and included in the central plan (For details see Chapter 15.)

**Dry Land Development**

To promote integrated agricultural development in the dry areas of the country which are faced with the twin problems of low production and high instability, a centrally sponsored scheme of integrated Dry Land Agricultural Development is being implemented. Under this scheme, 24 projects have been taken up in 12 states in coordina-

tion with research centres maintained by the Indian Council of Agricultural Research. The various programmes undertaken under these projects include cultivation of short duration, high-yielding and drought resistent varieties of crops, adopting the modern dry farming and plant protection technology. Incentives are given to the participating farmers in the shape of subsidies and grants. The results of demonstration have indicated that by following the improved dry farming techniques, 50 to 100 per cent increase in the yield of various crops can be expected. A revised outlay of Rs. 7 83 crores has been made in the Fifth Plan for this scheme.

**Rainfed Problem Area Development**

There are vast areas in various regions of the country which are underdeveloped due to the peculiar challenges like high rate of run-off water or excessive moisture conditions and limited investment resources. In order to develop these problem areas, the Government of India has recently sanctioned three pilot projects, one each in the districts of Hoshiarpur (Punjab), Indore (Madhya Pradesh) and Palamau (Bihar) The outlay for 1977-78 for these projects has been kept at Rs 25 lakh for Hoshiarpur and Rs 8 lakh each for the remaining two projects.

**Farmers' Service Societies**

Farmers' Service Societies are being organised in certain selected areas to provide integrated services on an experimental basis. The main objective is to help farmers, particularly small and marginal farmers, rural artisans and agricultural labourers by providing them credit inputs, essential consumer goods and marketing facilities

## AGRICULTURAL MARKETING

The Directorate of Marketing and Inspection advises the central and state governments on agricultural marketing techniques. Its other activities include : (i) promotion of grading and standardisation of agricultural and allied commodities; (ii) statutory regulation of markets and market practices; (iii) training of personnel, (iv) market extension; (v) market research and survey; and (vi) administration of Cold Storage Order, 1964 and Meat Food Products Order, 1973.

**Grading and Standardisation**

The Directorate of Marketing and Inspection enforces compulsory quality control before export on as many as 40 agricultural commodities The total value of commodities graded for export during 1976-77 was about Rs 260 crores

The important commodities graded under 'Agmark' for internal consumption include cotton, vegetable oils, ghee, cream, butter, eggs, honey, ground spices, etc. The total value of commodities graded for internal consumption during 1976-77 was about Rs 163.36 crores

To ensure the purity and quality of products graded under 'Agmark', 16 laboratories have been set up at Alleppy, Bangalore, Bombay, Calcutta, Cochin, Guntur, Jamnagar, Kanpur, Kozhikode, Madras, Manglore, Patna, Rajkot, Sahibabad, Tuticorin and Virudhanagar, in addition to Central Agmark Laboratory at Nagpur. Five more laboratories at Bhopal, Bhubaneswar, Gauhati, Chandigarh and Jaipur are at various stages of their establishment.

For securing fair return to farmers, 530 grading units in the producing areas were functioning by the end of March 1977.

The Directorate has formulated grade specifications for about 100 agricultural commodities

**Regulation of Markets**

Regulation of markets is done by the state governments. The Directorate of Marketing and Inspection, renders advice to state governments in framing market legislation and its enforcement. The number of regulated markets in the country at the end of June 1977 was 3,682.

The Directorate is also implementing a scheme for providing financial assistance for the development of infrastructure facilities in the regulated markets for (i) command areas; (ii) economically backward areas; and (iii) markets handling predominantly commercial crops like jute, cotton and tobacco Assistance amounting to Rs 2.75 crores has been granted to 116 regulated markets by the end of July 1977.

**Training of Personnel**

Personnel from different states are provided training in various fields of agricultural marketing by the Directorate of Marketing and Inspection. So far, 5,115 persons have been trained.

**Market Extension**

With the object of developing orderly marketing, extension work among the producers and consumers is carried out by the Directorate through various media like documentaries, cinema slides, exhibitions and printed literature

**Market Research and Survey**

The Directorate carries out country-wide marketing surveys for important agricultural, horticultural and livestock commodities to identify shortcomings in marketing A report on marketable supply paddy has been brought out recently. A similar one on wheat is being prepared.

**Cold Storage Order 1964 and Meat Food Products Order 1973**

In order to develop cold storage industry on scientific lines and to ensure that proper conditions are observed for preservation of the stored articles, the Cold Storage Order, 1964 is enforced by the Directorate This order covers the entire country excepting the states of U P and West Bengal which have enacted their own legislation

To ensure hygienic production of meat food products, the Meat Food Products Order, 1973 is being implemented by the Directorate from July 1975.

## AGRICULTURAL RESEARCH AND EDUCATION

The Department of Agricultural Research and Education, set up in December 1973, is responsible for co-ordinating research and educational activities in India in the fields of agriculture, animal husbandry and fisheries This Department, besides giving administrative support also provides necessary governmental linkage to the Indian Council of Agricultural Research (ICAR).

**ICAR**

Farm research in the country is carried out by a number of public and quasi-public institutions, spearheaded by the Indian Council of Agricultural Research (ICAR). It is the apex body for formulating plans and co-ordinating agricultural, animal husbandry and fisheries education and research and their application (For details, see Chapter on 'Scientific Research')

**Agricultural Education**

In the field of agricultural education, ICAR performs a role similar to the University Grants Commission Almost every state has an agricultural university, while Maharashtra and Uttar Pradesh have more than one With a view to imparting practical and skill-oriented train-

ing to farmers, unemployed village youth, school drop-outs, etc., Krishi Vigyan Kendras (Farm science centres) are being established by the ICAR in different parts of the country. One such centre is functioning in Pondicherry since March 1974. Ten more Kendras are being established at selected places in 1976-77. Seven Trainers' Training Centres with attached Krishi Vigyan Kendras are also being established.

The total enrolment of students for agricultural and animal sciences has gone up by about 16 times and that of agricultural universities 19 times since 1960. As on 1 May 1976 there were over 107 institutions teaching agricultural and animal sciences. Of these, 21 are agricultural universities.

National Commission on Agriculture

The National Commission on Agriculture, set up in 1970, submitted its final report on 31 January 1976 The main emphasis in the report is on the modernisation of agriculture through application of science and technology, keeping growth with social justice as the guiding principle. The Commission has spelt out the implications of establishing a prosperous egalitarian agricultural economy in another 25 years. It has estimated in quantitative terms, the potential growth in various sectors of agriculture—crop production, animal husbandry, fisheries and forestry—and also indicated in detail the technologies, inputs, infrastructural and institutional development required for achieving this.

## LAND REFORM

Objectives and Porgramme of Action

Immediately after independence, land reform measures were initiated in the country The objectives of the land reforms policy were set out by the planners as the removal of such institutional and motivational impediments to the modernisation of agriculture as were innate in the agrarian structure inherited from the past and the reduction of gross inequalities in the agrarian economy and rural society which stemmed from unequal rights in land

These objectives were translated into the following programmes of action : (a) the abolition of the prevalent intermediary system between the state and the tiller of the soil; (b) conferment of ownership rights on the cultivating tenants in the land held under their possession; (c) imposition of a ceiling on agricultural land holdings as a measure contributing to the modernisation of agriculture and to eliminate parastic absentee landlordism; (d) rationalisation of the record of rights in land so as to make it reflect the rights of tenants, share-croppers and other categories of insecure landholders and; (e) consolidation of holdings with a view to making easier the application of modern techniques of agriculture. Provision of dependable irrigation facilities, etc., was put down as one of the main items in the programme of action.

Abolition of Intermediary Tenures

By now the intermediary tenures in land, known variously as zamindaris, jagirdaris, inams, etc., have been abolished all over the country. Only a few minor jagirs and inams linger on and for their abolition steps are being taken. The ex-intermediaries have been given compensation amounting to Rs. 670 crores in cash and in bonds. More than two crore tenants and subinfeudatories have been brought in direct contact with the state. In addition, about 1.6 crore acres of waste, fallow and other categories of land have vested in the state.

**Tenancy Reform Measures**

While the abolition of the intermediary system eliminated the topmost layer of parasites on land, it did not realise by itself the ultimate goal of policy, namely, bringing the land to the actual tiller of the soil. This goal was viewed as realisable progressively over a period of several years. The idea was that tenancy should immediately be so rationalised as to make the tenant feel secure by making his tenure permanent, transferable and heritable The landlords would be given an option, available for a period of five years, to resume a certain specified extent of land from the tenants for personal cultivation. The rest of the land would be declared non-resumable, and its ownership would be conferred on the tenants over a period of a few years Continuation of the existing tenancies and the creation of fresh ones in future would be confined only to the cases of landlords who were members of the defence forces, widows, unmarried women, minor children and persons suffering from such physical and mental disabilities as stood in the way of their cultivating land personally or exercising personal supervision over the cultivation process.

Since the conferment of ownership rights in land on the tillers of the soil would not come about everywhere immediately, and even after the realisation of this objective there would be a residue of the tenancy system, the planners laid down the ingredients of the security of tenure as follows . (i) the rent payable by the cultivating tenant to the landlord should be so fixed as not to exceed 1/5th to 1/4th of the gross produce; (ii) no tenant should be evicted except according to the law which would specify the grounds of eviction. These grounds in the main were non-payment of rent and abuse of the land in a manner that might impair its productivity and usefulness and; (iii) declaration of the rights of tenants in the land as permanent, heritable and transferable

Legislative measures have been taken throughout the country for providing to the tenants security of tenure and for regulating rates of rent in the manner outlined The maximum rates of rent have been fixed at levels not exceeding those noted above in all the states except Punjab, Haryana, Tamil Nadu and the Andhra area of Andhra Pradesh. In Punjab and Haryana fair rent is 33 1/3 per cent of the gross produce; in Tamil Nadu it varies from 33 1/3 to 40 per cent of the gross produce In Andhra Pradesh the fair rent varies between 25 and 30 per cent of the gross produce Everywhere in the country the law regulates the conditions under which only a tenant can be evicted from the land. The right of resumption, exercisable by landlords within a limited period, has now expired almost all over the country, it exists in limited form in Assam, Bihar, Haryana and Punjab. In West Bengal, the land held by share-croppers is resumable by the landlord up to a maximum of 3 hectares, including the land held otherwise by the landlord. But, before exercising the right, a minimum of 1 hectare of land is to be left to the sharecropper as absolutely non-resumable

More than a dozen states have enacted laws conferring ownership rights on the cultivating tenants Notable among them are Maharashtra, Gujarat, Kerala, Karnataka, Assam, Himachal Pradesh, Jammu & Kashmir, Rajasthan, Madhya Pradesh and Orissa In three or four other states, the tenants have been given the optional right to purchase the land held under their cultivation by paying to the landlord a premium fixed by the appropriate authority according to the terms of the law. Everywhere the premium is so fixed as not to be beyond the paying capacity of the tenant. Steps are being taken for persuading

all the remaining states to enact laws automatically conferring ownership rights on the cultivating tenants.

In Gujarat, Maharashtra, Kerala, Himachal Pradesh and Jammu & Kashmir the system of tenancy has for all practical purposes been abolished. A great deal of work has been done in most of the remaining states. The current data indicate that around 40 lakh tenants have come to acquire ownership rights over 37 lakh hectares of land.

**Land Ceiling Measures**

The land ceiling measures were initiated in many parts of the country in the late 50's and early 60's. However, except for Jammu & Kashmir and West Bengal, the result was disappointing almost everywhere By the turn of the last decade, about 26 lakh acres of land was declared surplus, but only a half of it could really be taken over and again, only a half of that could actually be distributed by the state among landless agricultural workers and various other eligible categories of the rural population.

In the changing socio-economic and political context, renewed efforts were made at implementing land ceiling measures from the late sixties. These led to the laying down of a new national policy on land ceiling which was evolved on the recommendations of the Chief Ministers' Conference held in July 1972. The main features of this policy were a considerably lowered ceiling for a family of five, very few exemptions from the ceiling, the provision for payment of compensation to the former land owners at rates considerably lower than the market rates so that the allottees of surplus land could pay them over a period of years without any difficulty, the retrospective applications of the laws so that various transactions in land made by landowners with a view to evading or avoiding the effects of the impending ceiling could be set at naught and a clear announcement that most of the surplus land would be distributed to landless agricultural workers, particularly those who belonged to the Scheduled Castes and the Scheduled Tribes. By now, all the states in the country have enacted laws fully reflecting this policy. Only Nagaland and Meghalaya do not have land ceiling laws as there is common ownership of land in these states Steps are being taken to bring the Sikkim land reforms measures in line with the national pattern In order to insulate the current ceiling measures from challenge in the courts of laws, provision has been made for barring the jurisdiction of civil courts in regard to disputes that may arise from the implementation of these laws. Most of the laws have also been placed in the Ninth Schedule to the Constitution which place them beyond any challenge in the courts of law on grounds of alleged infringement of fundamental rights

By now, ten lakh hectares of land have been declared surplus as a result of the implementation of this new set of laws About 5 1 lakh hectares have been actually taken over by the state; a little over 3 5 lakh hectares have so far been distributed among 6 1 lakh allottees. The work of implementation is still in progress.

**Record of Rights**

Renewed efforts have been made for updating the record of rights and for ensuring that besides recording ownership, the rights of tenants, sharecroppers and other insecure holders are also reflected in it. The state of the record is particularly bad in the former permanent settlement areas and some of the southern states. Tenancy, sharecropping and similar other arrangements are mostly entered into by word of mouth This contributes a great deal to the insecurity of tenants,

sharecroppers and various other forms of insecure holders of land who are under the dual clutches of the landlord and the money-lender. In the condition of the rural society, bound as these poor people are in a variety of bondage, it is difficult for them to come forward and demand that their rights be recorded Legislative measures have been undertaken in most of the states for providing a statutory basis for recording the rights of tenants, share croppers, etc , either during the resurvey and resettlement operations or otherwise through *ad hoc* measures.

Consolidation of Holdings

By now more than 4 4 crore hectares of land in the country has been consolidated In Punjab, Haryana and Western Uttar Pradesh, the work is complete. Legislative measures for consolidation of holdings, either on a voluntary or compulsory basis, have been undertaken in most states of the country.

Distribution of Waste Land. Fellow Land etc

Alongwith these measures, the states and union territories have gone on distributing large tracts of waste, fallow and other categories of land that can with some effort be brought under the plough It is estimated that more than 65 lakh hectares have been distributed over the past 15-20 years

Conferment of Ownership Rights on Homestead Tenants

A considerable proportion of marginal farmers, sharecroppers, landless agricultural labourers and rural artisans used to go without proper shelter. Many of them were known as homestead tenants living on huts or some improvised shelter on small pieces of land adjacent, to the farm land of the landlord under whose employ they were Legislative measures have been undertaken to provide security of tenure to these homestead tenants The national policy is to confer ownership rights on them This is being done and a large number of them has already become owners of the small pieces of land on which their huts are built

Distribution of House-sites

It was estimated that more than 120 lakh families needed provision of house sites for building shelters From the available waste land surplus land, etc , 71 lakh such families had been provided with house sites Rapid steps are being taken for providing house-sites to the remaining families

## ANIMAL HUSBANDRY

CATTLE DEVELOPMENT

Intensive cattle development projects, covering all aspects of development such as controlled breeding, augmentation of feed and fodder resources, effective health cover, dairy extension supported by marketing facilities and guaranteed price, form the main plank of development of cattle in the country There are at present 86 such projects linked up with dairy plants

Cross breeding of indigenous cows with bulls of exotic dairy breeds is encouraged for augmenting milk production Programmes for selective breeding in recognised breeding tracts and for up-grading of nondescript animals with recognised dairy breeds are also taken up. Central cattle breeding farms are also being strengthened for production of high quality bulls of major breeds such as Red Sindhi, Tharparkar, Jersey and Holstein-Friesian and Murrah and Surti breeds of buffalloes To support the cross breeding programme, import of exotic cattle is allowed and stations are being set up for production of frozen semen

from high quality bulls of exotic and indigenous breeds. Bilateral collaboration projects for cattle development are also taken up in selected areas.

Fodder Development

The central government has established seven regional stations in different agro-climatic regions of the country for fodder production and demonstration and for multiplication of foundation seeds of improved fodder varieties. Two large fodder seed production farms are being set up with Australian collaboration.

POULTRY DEVELOPMENT

Poultry development programmes are continuing both in the public and private sectors. The poultry industry has made a major breakthrough in attaining self-sufficiency in respect of genetically superior chicken. The three central poultry breeding farms distributed 3.17 lakh chicks for breeding purposes to the states and private poultry farms during 1976-77. As a result of intensification of scientific poultry breeding programme, a strain cross "H-H-260" capable of laying about 260 eggs a year has been evolved at the Central Poultry Breeding Farm, Hesserghatta, Bangalore and it is being supplied to private and public sector poultry breeding farms for further distribution.

PIGGERY DEVELOPMENT

The eight bacon factories and pork processing plants established in the country in the public sector have been increasingly utilizing their capacity for production of pork and pork products. Some of these factories have diversified their production pattern and are handling different types of meat.

The regional pig production stations supply pig breeding stocks of exotic pigs to the farmers for further multiplication and the surplus stock for slaughtering in bacon factories. Special programmes are being taken up to develop piggery programme in the North-Eastern states.

SHEEP DEVELOPMENT

The central sheep breeding farm set up at Hissar with Australian assistance is supplying pure-bred Corriedale rams and crossbred sheep for sheep development programme in different states. Besides, centrally sponsored large sheep breeding farms have been set up in selected states such as Andhra Pradesh, Karnataka, Jammu and Kashmir, Rajasthan, U.P., Bihar and Madhya Pradesh. Merono sheep from USSR have been imported for sheep development programmes, particularly for cross breeding.

Modernisation of Slaughter Houses

Programmes for modernising slaughter houses in selected cities such as Panaji (Goa), Bangalore, Calcutta, Durgapur, Hyderabad and Madras have been initiated and development corporations have been formed.

Animal Health

Rinderpest eradication programme is carried out in different parts of the country through vigilance units, check posts, vaccination stations, immune belts and follow-up teams for control/eradication of rinderpest disease. The incidence of rinderpest is now considerably reduced and it remains confined to only certain pockets in the country. In order to meet the increasing requirements of biologicals, state veterinary product centres are being expanded by providing additional equipment and chemicals for production of new biologicals in addition to con-

ventional ones. Foot and mouth disease control programme is also being initiated in 50 selected districts as a promotional measure.

Special Programmes

Comprehensive livestock production programmes benefiting small and marginal farmers and agricultural labourers are being taken up in compact areas distributed in different states The identified beneficiaries will be given subsidy towards cost of rearing of crossbred calves Selected beneficiaries are also given subsidy for setting up poultry, piggery and sheep production units and for supplementing their income. These programmes provide for livestock breeding health cover, freeding and marketing of produce

DAIRY AND MILK SUPPLY

There are at present 178 dairy plants in different parts of the country for supplying quality milk to the consumers. The installed capacity of these plants is 74 lakh litres per day Under Operation flood, project, milk production enhancement programmes are being taken up in 10 selected states. Necessary infrastructure has also been created by setting feeder/balancing dairies and expansion of capacity of the metropolitan dairies, which provide an assured market for the rurally produced milk at a remunerative price

FISHERIES

Development of fisheries has been assigned a high priority under the Fifth Five Year Plan in view of its vast potential for raising the nutritional standard of Indian diet and as a foreign exchange earner The Plan aims at achieving a production level of 31.18 lakh tonnes of fish and foreign exchange earnings of Rs 150 crores through export of marine products in 1978-79.

Production

Fish production in the country has maintained an upward trend in recent years. The total production in 1974-75 was 22 55 lakh tonnes (14.71 lakh tonnes of marine and 7 83 lakh tonnes of inland), which is about 15 per cent more than that of the previous year. The current level of production is 24 lakh tonnes.

Export & Import

The export of marine products continued to register significant increase and during 1975-76 reached an all time high level of 54463 tonnes, earning Rs 124.53 crores in foreign exchange. As compared to 1974-75, the increase was 20 per cent in quantity and 82 per cent in value. Exports went up further to Rs 184 12 crores 1976-77.

Marine Fishing

The Fifth Plan envisages introduction of 4,750 additional mechanised boats Currently about 13,500 mechanised boats are in operation, compared to 10,500 boats at the end of Fourth Plan. Introduction of deep sea fishing vessels has been accorded a high priority during the Fifth Plan and it is proposed to introduce 200 vessels during the Plan period. At present there are about 50 such vessels under operation. Permission for the import of 75 fishing vessels has been accorded. To encourage the construction of vessels indigenously, loans at soft lending terms are granted from the shipping development fund

Fishing harbours

To exploit marine fish resources, landing and berthing facilities are being provided at various harbours. Medium fishing harbours capable of handling small and medium sized fishing vessels are nearing completion at Karwar, Port Blair, Tuticorin, and Vizhinjom Construction work on major fishing harbours of Madras, Roychowk, Visakhapatnam

Malpe and Cochin is in progress. Self contained fishing harbours are being established at Honnavar (Karnataka) Dhamra (Orissa). Malipatnam & Kodyakkarai (Tamil Nadu), Kakinada (Andhra Pradesh) and Ratnagiri (Maharashtra). Besides landing and berthing facilities have been sanctioned at five centres in Maharashtra. Apart from these projects, landing and berthing facilities on a limited scale have been provided at 70 sites. Veraval and Mangrol have been selected for the fisheries development with World Bank assistance.

Exploration of Marine Resources

The Exploratory Fisheries Projects, Bombay, carried out exploratory and experimental fishing in off-shore and deep sea waters and surveys of fisheries resources from 12 bases with the help of 23 trawlers. The surveys have been more or less completed up to 25 fathoms depth and the results are being made available to the fishing industry. The UNDP/FAO Pelagic Fishery Project is engaged in resources survey of the south west coast of India for the last five years. The project has gathered valuable data on the resources of sardines, mackerel, white bait, etc., and its tenure has been extended upto the end of Fifth Plan with increased scope of activity. Besides survey, the project will investigate the possibilities of commercial exploitation of pelagic fishing resources of south west and south-east coasts.

Integrated Fisheries Project

The important activities of the integrated fisheries project, Cochin, include (i) exploratory and experimental fishing, (ii) training of personnel for the fishing industry and (iii) introduction and marketing of diversified fish products through fish stalls. The project activities are now being dovetailed with that of the Pelagic Fisheries Project The Workshop and slipway facilities have also been enlarged and new lines of processing have been added.

Inland Fisheries

Fish farmer's development agencies are being set up in various states to popularise fish culture on scientific lines Twenty eight such agencies have already been set up and fish farmers have been trained in the latest methods in pisciculture. The financing institutions have been participating in the development activities of the agencies.

Fish Marketing, Processing and Preservation

During 1975-76 seven refrigerated rail vans continued to operate the trunk routes for movement of fish within the country. A cold chain scheme to connect the major fish producing and consuming centres is under the consideration of the Government of India. Under these schemes, marketing of processed and frozen fish will be undertaken; the centres selected for the purpose being Calcutta, Delhi and Bangalore

Training

Training facilities are available at the Central Institute of Fisheries Education, Bombay, Central Institute of Fisheries Operatives, Cochin and its unit at Madras, Inland Fisheries Training Institute, Barrackpore and the Regional Training Centre for nIland Fishery Operatives Agra A centre for training extension workers in fisheries culture is functioning at Hyderabad since 1974.

## FORESTRY

In India forests occupy an area of about 749 lakh hectares and account for 22.8 per cent of the total geographical area. The National Forest Policy aims at maintaining one third of the total geographical area

under forests There is very heavy pressure on forest land for diversion to cultivation, river valley projects, industrial estates and many other uses, as a result of which about 34 lakh hectares of forest area were lost during the period 1951-52 to 1972-73. This alarming situation has been engaging government's attention for long. The National Development Council, therefore, took a decision in December 1973 that further deforestation should never be done for expansion of cultivation, and to compensate for the area already lost, suitable waste lands should be afforested State governments are, accordingly, taking effective measures to preserve the nature since state forests constitute nearly 95.2 per cent of the total forest area in the country Table 14.7 shows the classification of area under forests in 1973-74 and 1974-75.

TABLE 14 7
AREA UNDER FORESTS

(lakh hectares)

| Description | 1973-74 | 1974-75[1] |
|---|---|---|
| 1 *From point of view of Exploitation* : | | |
| (a) Exploitable (forests in use) | 428 | 420 |
| (b) Potentially exploitable | 178 | 181 |
| (c) Others | 144 | 148 |
| Total | 750 | 749 |
| 2 *By ownership* | | |
| (a) State | 713 | 717 |
| (b) Corporate bodies | 24 | 21 |
| (c) Private individuals | 13 | 11 |
| Total | 750 | 749 |
| 3. *By legal status* | | |
| (a) Reserved | 381 | 391 |
| (b) Protected | 242 | 239 |
| (c) Unclassed | 127 | 119 |
| Total | 750 | 749 |
| 4 *By composition* : | | |
| (a) Coniferous | 42 | 47 |
| (b) Non-coniferous (including bamboo) | 708 | 702 |
| Total | 750 | 749 |

[1]Provisional

Prodcution

Annual recorded production of industrial wood and fuel wood (including wood for charcoal) separately for coniferous and non-coniferous species together with royalty received by the state forest departments during 1973-74 and 1974-75 is indicated in table 14 8

TABLE 14.8
PRODUCTION OF INDUSTRIAL AND FUELWOOD

| Particulars | 1973-74 Quantity (lakh cubic metres) | 1973-74 Royalty[2] receipt (Rs crores) | 1974-75[1] Quantity (lakh cubic metres) | 1974-75[1] Royalty[2] receipt (Rs crores) |
|---|---|---|---|---|
| 1 *Industrial wood* · | | | | |
| (i) Coniferous | 10 | | 10 | |
| (ii) Non-coniferous | 87 | | 88 | |
| TOTAL | 97 | | 98 | |
| 2 *Fuel wood (including wood for charcoal)* | | 132 60 | | 178 ·63 |
| (i) Coniferous | 4 | | 4 | |
| (ii) Non-coniferous | 161 | | 161 | |
| TOTAL | 165 | | 165 | |

[1]Provisional
[2]Actual market value of the major forest products is considerably higher than the royalty received by the state governments.

Minor Products

Apart from providing raw materials for pulp, panel products, matchwood and other wood-based industries, forests are also a source of number of useful minor products like bamboo, canes, kendu leaves, grasses, essential oils, medicinal plants, lac, resins, fatty oils and fats, gums, tanning materials, dyes and animal products, etc. Quite a number of these are valuable foreign exchange earners.

Table 14.9 gives the royalty received by the state forest departments for all minor forest products during 1973-74 and 1974-75.

TABLE 14 9
MINOR FOREST PRODUCTS AND ROYALTY

(Rs crores)

| Particulars | 1973-74 | 1974-75[1] |
|---|---|---|
| 1. Bamboo | 9·28 | 11 05 |
| 2 Grazing and Fodder | 1 64 | 3 12 |
| 3 Other minor forest products | 60 75 | 70 51 |
| TOTAL | 71·67 | 84·68 |

[1]Provisional

Forestry Development

The object of forestry development has been to maximum supply of various forest products on sustained yield basis, particularly of industrial and commercial timber and fuel wood so as to meet the increasing requirements of the country. In the Fifth Plan special emphasis has been laid on (i) nationalisation of forestry operations, (ii) protection and management of wild life and (iii) commercialisation of industrial forestry and (iv) environmental and social forestry. With this aim in view, a dynamic programme of production forestry by creating large scale man-made forests with the help of institutional financing has been launched to achieve a substantial rise in the production of industrial wood. Measures to augment fuel wood resources and small wood for farmers through social forestry schemes have also been initiated. The elimination of contractors in some states has greatly reduced illicit felling of valuable trees. Side by side, new planting programmes are taken up. Other important central schemes in operation include forest research, pre-investment survey of forest resources and logging training centre project.

*Pre-investment Survey of Forest Resources*

The central project relating to pre-investment survey of forest resources (renamed as National Forest Resources Survey) aims at investigating the economic availability of raw materials required for establishment

and development of wood-based industries in selected areas in the country. During 1976-77, an area of 33952 sq. km. is expected to have been surveyed in the states of Himachal Pradesh, Rajasthan, Orissa, Maharashtra, Arunachal Pradesh and Andaman and Nicobar Islands.

*Logging Training Centre Project*

Logging Training Centres Project is primarily engaged in imparting training in modern logging techniques and tools so as to reduce wastage as well as the cost of such operations. The project has trained over 2,459 persons in various aspects of modern logging methodologies since its inception in April 1965.

*Forest Research*

The Forest Research Institute at Dehra Dun is the main centre for research in foresty and forest products and for imparting forest education. The institute has four regional centres at Bangalore, Coimbatore, Jabalpur and Burnihat for regional research activities. There are four colleges located at Coimbatore, Dehra Dun, Kurseong and Burnihat for imparting training to forest rangers and state forest service officers. The state forest departments have also organisations for silvicultural research.

*Central Forestry*

A Central Forestry Commission, with the Inspector General of Forests as its chairman, was set up in 1965 for effecting technical coordination, collection and dissemination of information on forestry. The Commission also acts as a servicing unit for the Central Board of Forestry.

## IRRIGATION

The vulnerability of India's agriculture owing to the vagaries of the monsoon has made it imperative to accord irrigation a high place in the national development plans. About 800 major and medium projects were taken up after Independence up to 1976-77 of which 445 have been completed and many others have started yielding partial benefits The irrigation potential has more than doubled since the beginning of the First Plan. The total irrigated area in the country, which was about 2.26 crore hectares in 1950-51, rose to about 4.70 crore hectares in 1976-77 The total cropped area at the end of 1973-74 was about 16 15 crore hectares

Water Potential

A broad assessment of the water resources of the country by different agencies places the total average annual surface run-off as varying from 1,67,300 crore cubic metres to 1,88,100 crore cubic metres and the approximate annual groundwater recharge as 42,400 crore cubic metres The utilisable surface and groundwater resources were assessed by the Irrigation Commission in 1972 as 87,000 crore cubic metres Against this, the utilization rose from about 17,250 crore cubic metres in 1950-51 to about 34,300 crore cubic metres by March 1975.

Growth and Utilization of Irrigation Potential

In 1951, the irrigated area from major and medium projects was 97 lakh hectares By 31 March 1977, 445 out of a total of 800 major and medium projects taken up since 1951 had been completed and an additional potential of 1 38 crore hectares was estimated to have been created. Table 14 10 shows the growth of irrigation potential and the corresponding utilization from major and medium projects since the advent of planning

TABLE 14 10
**Growth of Irrigation**
*(Major and Medium Projects)*

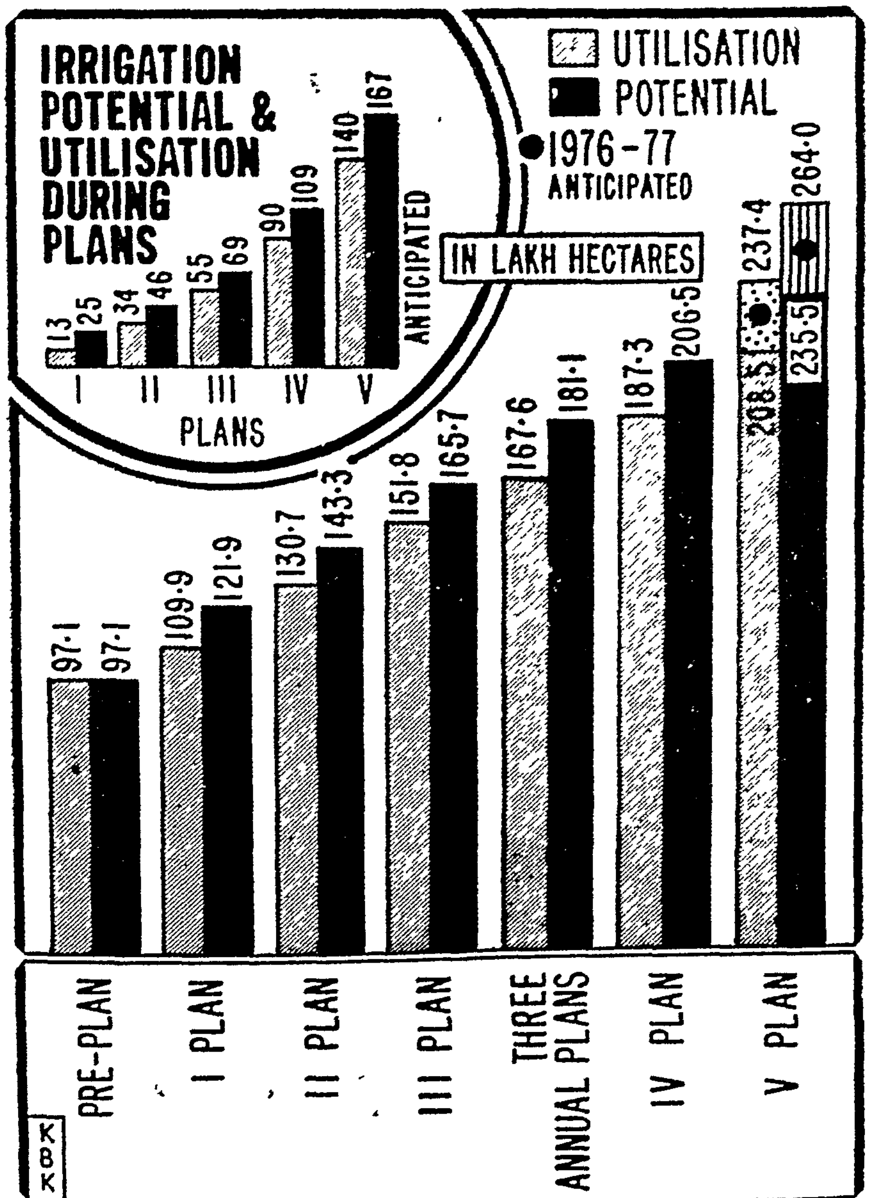
(*lakh hectares*)

| | Additional potential at the end of | | | | |
|---|---|---|---|---|---|
| | 1st Plan | 2nd Plan | 3rd Plan | 4th Plan | 5th Plan (anticipated) |
| Potential | 25 | 46 | 69 | 109 | 167 |
| Utilization | 15 | 34 | 55 | 90 | 140 |

**Investment during the Plans**

The total investment on major and medium irrigation projects between 1951-52 and 1976-77 was Rs 4,595 crores, that for the Fifth Plan being Rs 3,135 crores. The outlay for 1977-78 is Rs 989 crores.

# IRRIGATION POTENTIAL AND UTILISATION FROM MAJOR AND MEDIUM SCHEMES



Minor Irrigation

Minor irrigation works continued to play a key role in augmenting agricultural production. Special steps were taken during 1974-75 to make available electric power and diesel supply for irrigation pump-sets on priority basis. During 1974-75, against an approved public sector outlay of about Rs 100 crores, the expenditure is estimated a Rs 105 crores. The approved public outlay for 1975-76 is about Rs 107 crores.

About 8 lakh hectares of additional irrigation potential is estimated to have been created by minor irrigation works, raising the total irrigation contribution from 2 35 crore hectares to 2 43 crore hectares by the end of 1974-75

Irrigation and Multi-purpose Projects

Some of the major irrigation and multi-purpose projects are described briefly in the following paragraphs

*Nagarjunasagar (Andhra Pradesh)*

The Nagarjunasagar project comprises the construction of a 1,450-metre long masonry dam with 3,414-metre long earthern flanks on the Krishna river near Nandikonda village, about 144 km from Hyderabad and two canals, one on each side of the river. The 204-km long right bank canal and the 179-km long left bank canal will together irrigate 8 3 lakh hectares. The dam has been completed and work on the canals is under way. An irrigation potential of 4.99 lakh hectares out of a total potential of 8.32 lakh hectares had been created by 1976-77

*Tungabhadra (Andhra Pradesh and Karnataka)*

A joint project of Andhra Pradesh and Karnataka, the Tungabhadra project comprising a 2,441-metre long and 49 33-metre high dam on the Tungabhadra river, was completed in 1956 Work on the canals and distribution system has also been largely completed. A total irrigation potential of 3 32 lakh hectares had been created by the end of 1973-74

*Pochampad (Andhra Pradesh)*

The Pochampad project in Andhra Pradesh envisages construction of an 812-metre long and 43-metre high masonry dam with earthen flanks across the river Godavari There will be a 113-km long right bank canal to irrigate an area of 2 3 lakh hectares. Work on the dam and the canal is in progress. An irrigation potential of one lakh hectares had been created by 1976-77.

*Gandak (Bihar and Uttar Pradesh)*

Bihar and Uttar Pradesh are the participating states in the project. Nepal, under an agreement signed with India in 1959, also derives irrigation and power benefits from it. The irrigation potential of the project is 14 59 lakh hectares.

The 740-metre long barrage and appurtenant works were completed in 1969-70 The main western canal was opened in December 1972 Partial irrigation has commenced from the main eastern canal. The Nepal eastern canal was inaugurated in 1973. The project is to be completed during the Sixth Plan An irrigation potential of 7.88 lakh hectares had been created by 1976-77 in Bihar and Uttar Pradesh.

*Kosi (Bihar)*

The multi-purpose Kosi project in Bihar envisages irrigation, flood control and lower benefits An agreement on the project was signed between India and Nepal in 1954 and revised in 1966. The irrigation potential of the project is 4.33 lakh hectares. Flood embankments under the project were completed in 1959.

The barrage near Hanumannagar in Nepal was inaugurated in 1965. The eastern Kosi canal system is practically complete except for the distribution system and drainage.

Four more schemes have been sanctioned under the second stage of the project. They are : a 20 mw power house, the western Kosi canal, the Rajpur canal and extension of the flood embankments.

The western Kosi canal project provides for the construction of a 112 65-km long main canal taking off on the right bank of the Kosi barrage at Hanumannagar. The first 35.2 km of the main canal lies in Nepal. The project, after completion, would irrigate 3.14 lakh hectares The Rajpur canal scheme, envisaging construction of a branch canal of the eastern main canal, will irrigate an area of 1.25 lakh hectares Out of an ultimate irrigation potential of 8.75 lakh hectares, potential of 4 33 lakh hectares had been created by the end of 1976-77

*Kakrapara (Gujarat)*

The Kakrapara project in Gujarat is the first phase of the development of the Tapi valley A 621-metre long and 14-metre high weir near Kakrapara in Surat district was completed in 1953. Most of the earth-work on the canals and distributaries has been completed. An irrigation potential of 2 15 lakh hectares out of an ultimate potential of 2 28 lakh hectares had been created till the end of March 1977.

*Ukai (Gujarat)*

The Ukai multi-purpose project in Gujarat consists of a 4,928 metre long and 68.6-metre high dam across Tapi river near the village Ukai The project will irrigate 1 53 lakh hectares and generate 300 mw of power An irrigation potential of 1 15 lakh hectares out of the ultimate potential of 1 53 lakh hectares had been created by the end of 1976-77

*Mahi (Gujarat)*

The Mahi project in Gujarat comprises two stages. Stage I consists of a 796-metre long and 20 6 metre high masonry pick-up weir across the Mahi river near Wanakbori village. A 74-km long canal takes off on the right side to irrigate a total area of 1 44 lakh hectares.

Stage II envisages construction of a 1,430-metre long and 58-metre high composite dam across the river Mahi near Kadana to irrigate an area of 88,000 hectares as well as additional area under Stage I The work on Kadana is in an advanced stage of construction

Out of an ultimate potential of 2 75 lakh hectares, 2.29 lakh hectares of potential has been created by 1976-77

*Bhadra (Karnataka)*

The Bhadra multi-purpose project across the river Bhadra in Karnataka, when completed, will irrigate about one lakh hectares of land and generate 33 mw of power. An irrigation potential of 97,000 hectares had been created by 1976-77

*Upper Krishna (Karnataka)*

The Upper Krishna project in Karnataka consists of the Narayanpur dam across the Krishna river with a canal taking off from the left bank and the construction of a dam at Aematti It will irrigate about 4 lakh hectares in the first stage

*Ghataprabha (Karnataka)*

The Ghataprabha Valley development scheme envisages harnessing of water of the river Ghataprabha for irrigation in Belgaum and Bijapur districts of Karnataka. It is proposed to be implemented in three stages So far two stages approved earlier are under execution. The

third stage has been approved in 1976. Stage I of the project envisages a masonry weir, 2,085 metres long and 9 metres high across the river Ghataprabha at Dhupdal, with a left bank canal 71 km long. It is practically completed Stage II envisages construction of a composite dam, 5,275 metres long and 50 metres high at Hidkal and extension of Ghataprabha left bank canal from 71 km to 114 km. The works under stage II are practically completed. Stage III envisages raising of Hidkal dam and construction of a 202 km long right bank canal taking off from Hidkal dam It will have an ultimate potential of 1 97 lakh hectares Works of this stage are in progress. Out of an ultimate potential of 3 36 lakh hectares a potential of 1.26 lakh hectares had been developed till the end of 1976-77.

*Malaprabha (Karnataka)*

The Malaprabha project, a 164-metre long and 43.4-metre high masonry dam, will be constructed across the Malaprabha in Belgaum district of Karnataka and canal systems taking off from both flanks of the reservoir. It will irrigate 2 07 lakh hectares of land Out of this, a potential of 66,000 hectares was created by March 1977.

*Tawa (Madhya Pradesh)*

The Tawa project envisages the construction of a reservoir across the Tawa river, a tributary of the Narmada, in Hoshangabad district (Madhya Pradesh). The 1,630-metre long dam will be earth-*cum*-masonry type. On completion, the project will irrigate about 3 32 lakh hectares The project is in an advanced stage of construction and part benfits have started flowing A potential of about 82 000 hectares was created by March 1977.

*Chambal (Madhya Pradesh and Rajasthan)*

The Chambal project is being jointly executed by Madhya Pradesh and Rajasthan In the first stage, the Gandhi Sagar dam and its 115 mw power station, and the Kota barrage were completed. The Rana Pratap Sagar dam with a power house of 172 mw capacity was constructed in the second stage The third stage comprises the construction of the Jawahar Sagar dam and a 99 mw power station With the completion of all the three stages, the project will generate 386 mw of power Out of the ultimate irrigation potential of 4 98 lakh hectares, a potential of 4 57 lakh hectares had been created by the end of 1976-77

*Bhima (Maharashtra)*

The Bhima project envisages construction of two dams, one on the Pawana river near Phagne in Pune district and the other across the Krishna river near Ujjaini in Sholapur district The Pawana dam will be 1,700 metre long and 43 metre high. The Ujjaini dam will be 2,467 metre long and 56.4 metre high The work on Pawana component of the project is complete. Ujjaini dam is nearing completion The 160-km long main canal will take off from the left bank The project will have an irrigation potential of 1 74 lakh hectares A potential of 10,000 hectares had been created by the end of 1976-77

*Jayakwadi (Maharashtra)*

The Jayakwadi project envisages the construction of a 37-metre high earthen dam with a masonry spillway across the river Godavari in Maharashtra in the first stage A 185-km long canal will take off from the left side to irrigate an area of 1 42 lakh hectares By 1975-76, 54,000 hectares of potential area had been created The second stage of the project which has been sanctioned recently envisages construction of a 133 km canal on the right side, a 30.5 metre high and 6,090

metre long dam across Sindphana river at Majalgaon and a right bank canal from majalgaon dam. Another 1.35 lakh hectares would get irrigation when Stage II is completed.

Out of an ultimate potential of 2.77 lakh hectares, a potential of 64,000 hectares was created by the end of 1976.77.

*Hirakud (Orissa)*

The 4,801.2 metre long main Hirakud dam in Orissa, the world's longest, impounds 810 crore cubic metres of the Mahanadi waters. The project irrigates 2.50 lakh hectares out of the irrigation potential of 2.54 lakh hectares by the end of 1973-74. Its present installed power generation capacity is 270.2 mw.

*Mahanadi Delta Scheme (Orissa)*

The Mahanadi delta irrigation scheme, also in Orissa, is being executed to make use of the releases from the Hirakud reservoir. On completion, it will irrigate 5.35 (Revised) lakh hectares. Out of this, an irrigation potential of 4.30 (Revised) lakh hectares had been created till the end of 1976-77.

*Bhakra Nangal*

A Joint venture of Haryana, Punjab and Rajasthan, the Bhakra Nangal project is India's biggest multi-purpose river valley scheme so far, completed at a cost of Rs 236 crores. It consists of a straight gravity dam, 518-metre long and 226-metre high, across the Sutlej at Bhakra, the 29-metre high Nangal dam, the 64-km long Nangal hydel channel, two power houses at Bhakra dam, two more power stations on the hydel channel at Ganguwal and Kotla with a total installed capacity of 1,204 mw, about 1,100 km of canals and about 3,400 km of distributaries The Bhakra dam impounds 7.8 lakh hectares metres of water. The canal system of the project is now irrigating 14.6 lakh hectares.

*Beas (Punjab, Haryana and Rajasthan)*

The Beas project, another joint venture of Punjab Haryana and Rajasthan, consists of (i) Beas Sutlej Link, (ii) the Beas Dam at Pong and (iii) Beas Transmission System. The estimated cost of the Beas Project including Beas Transmission Lines, is Rs 715 crores.

The Beas Sutlej Link project is principally a power project with an installed capacity of 4 units of 165 mw each, with a provision for two extension units of 165 mw each. The civil works and conductor system (including Pandoh diversion Dam) have been substantially completed. The first unit has been energised in October 1977 when the waters of Beas river were put into Sutlej river at Slapper (Himachal Pradesh.

The Beas Dam at Pong, principally an irrigation project, is a 133-metre high earth-rockfill dam and has installed capacity of 4 power units of 60 mw each, with a provision for extension of two units of 60 mw each. The dam was raised to its full height in June 1974 when water was stored in the reservoir for regulated flow for irrigation in Rajasthan and additional areas in Punjab. The first power unit is likely to be energised in December 1977.

*Rajasthan Canal (Rajasthan)*

The Rajasthan canal project will provide irrigation facilities to the north-western region of Rajasthan which is part of the Thar desert.

The project, which will use waters from Pong dam, consists of the 215-km long Rajasthan feeder canal (with the first 178 km in Punjab and Haryana and the remaining 37 km in Rajasthan) and the 467-km long Rajasthan main canal lying entirely in Rajasthan

The first stage of the project consists of the construction of the feeder canal in full and 195 km of the main canal The feeder and main canal have been completed.

The second stage covers the construction of the remaining 272 km of the main canal. The project will ultimately irrigate about 13.25 lakh hectares. An area of 2.78 lakh hectares was actually irrigated in 1976-77. An irrigation potential of 5.40 lakh hectares is likely to be created by 1978-79.

*Parabikulam Aliyar (Tamil Nadu and Kerala)*

This joint venture of Tamil Nadu and Kerala envisages the integrated harnessing of eight rivers, six in the Annamalai Hills and two in the plains. The scheme will irrigate about one lakh hectares and also have an installed power generating capacity of 185 mw. A potential of 88,000 hectares had been created up to the end 1976-77.

*Sarda Sahayak (Uttar Pradesh)*

Sarda Sahayak Project envisages construction of (i) a 1,003-metre long barrage across the river Ghagra, (ii) a link channel of 28 km length, (iii) a 811-metre long barrage across the river Sarda, (iv) a feeder channel of 260 km length involving construction of two major aqueducts over Gomti and Sai and (v) re-modelling of 6,450 km of distribution system and construction of 2,570 km of new channels. The works are being executed in five stages Stage-I and II have been practically completed and commissioned.

Out of an ultimate potential of 15.4 lakh hectares, 3.05 lakh hectares' potential had been created by the end of 1976-77.

*Ramganga (Uttar Pradesh)*

The Ramganga, a major tributary of the Ganga in Utar Pradesh, is being tamed with a 625-metre long and 125 6-metre high earth and rock-fill dam and a 72-metre high saddle dam in the Garhwal district. The project will irrigate 5.75 lakh hectares, have an installed power capacity of 198 mw, supply 200 cusecs of water for the Delhi water supply scheme and reduce the intensity of floods in central and western Uttar Pradesh. The project is nearing completion; the dam was completed in June 1974. An irrigation potential of 4 40 lakh hectares had been created by the end of 1976-77.

*Farakka (West Bengal)*

The Farakka project in West Bengal was taken up for the preservation and maintenance of Calcutta port and for improving the navigability of the Hooghly. It consists of a barrage across the Ganga at Farakka, a barrage at Jangipur across the Bhagirathi, a 39-km long feeder canal, taking off from the right bank of the Ganga at Farakka and tailing into the Bhagirathi below the Jangipur barrage and a road-*cum*-rail bridge over the Farakka Barrage.

Construction work was started in 1963-64; the two barrages and the road-*cum*-rail bridge have been completed Following the Indo-Bangladesh agreement of 18 April 1975, the scheme was commissioned on 21 April 1975. Work on the navigation structures is in progress.

*Mayurakshi (West Bengal)*

The Mayurakshi project in West Bengal comprises the Canada dam, 640-metre long and 47 24-metre high, and irrigates about 2 5 lakh hectares of land The hydro-electric plant produces four megawatts of power. The project is partially complete. An irrigation potential of 2.40 lakh hectares was created by the end of 1976-77.

*Gangsabati (West Bengal)*

The Kangsabati project in West Bengal envisages the construction of earthen dams, connected together by intermediate dykes, on the Kangsabati and Kumari rivers. Its canal system would cross the Silabati, Bhairoh Banki and Terafeni rivers, on which three pick-up barrages will be constructed. The project will benefit an area of 4.02 lakh hectares A potential of about 3.24 lakh hectares had been created by 1976-77.

*Damodar Valley Project (West Bengal and Bihar)*

The Damodar Valley Project was conceived for the unified development of irrigation, flood control and power generation in West Bengal and Bihar The project is administered by the Damodar Valley Corporation (DVC), established in 1948. The DVC has completed multipurpose dams at Tilaiya, Konar, Maithon and Panchet, hydel power stations at Tilaiya, Maithon and Panchet, a 692-metre long and 11.58 metre high barage at Durgapur, 2,495 km of irrigation canals and three thermal power houses at Bokaro, Chandrapura and Durgapur The irrigation potential of the project is about 3.64 lakh hectares and its installed power generating capacity is 1,181 mw, made up of 1,077 mw of thermal and 104 mw of hydel power. A potential of 3.40 lakh hectares was created by the end of 1976-77.

FLOOD CONTROL

The flood-prone area in the country has been assessed at about 2.5 crore hectares To save this area from the ravages of floods, the Flood Control Programme was launched in 1954 In the first two years, the programme on a national scale was devoted mainly to intensive investigations, collection of data and execution of some emergent works. Since 1956, flood control and anti-waterlogging measures have been taken up. Flood forecasting and warning centres have been set up in some of the highly flood-prone river basins

Flood Control Bodies

Flood Control Boards lay down policies at the state level and River Commissions (Floods) co-ordinate implementation at the inter-state level At the national level, the Central Flood Control Board co-ordinates the work of the state boards and the River Commissions

Because of the complexity and magnitude of the flood problem in the Brahmaputra valley and north Bengal rivers, flood control commissions have been set up by the Governments of Assam and West Bengal for implementing a comprehensive plan of flood control. The Government of India has constituted the Brahmaputra Flood Control Board and the North Bengal Flood Control Board to lay down policies, approve schemes and fix priorities. The Ganga Flood Control Board and the Ganga Flood Control Commission have also been constituted by the central government to prepare a comprehensive flood control plan for the Ganga basin and co-ordinate its implementation by the concerned states

Rashtriya Barh Ayog

Taking into account the magnitude and complexity of the flood problem in the country, considerable experience that has been gained in planning, implementation and performance of the flood control measures during the last 20 years and the advancement of technology not only in India but also in foreign countries, the Government of India constituted the Rashtriya Barh Ayog in July 1976. This Ayog would conduct a study in depth of the present approach and programmes of flood control measures and evolve a coordinated, integrated and scientific approach

to the flood control problem and draw up a National Plan fixing priorities. The Ayog is expected to submit its report in about two years

Progress

Since the commencement of the National Flood Control Programme in 1954, nearly 9,740 km length of embankments, 16,930 km length of drainage channels and 235 town protection schemes and raising of the level of 4,690 villages have been completed. These works carried out at a cost of Rs 526.93 crores, benefited an area of nearly 88 lakh hectares. In addition to these flood protection measures, a number of reservoir projects have been completed which have helped to mitigate the flood problem in the river channels downstream Notable among these would be Hirakud Dam on river Mahanadi, Konar, Panchet and Tilaiya Dams on river Damodar, Bhakra on river Sutlej, Pong on river Beas and Ukai on river Tapi. The central government has also set up a Flood Forecasting Organisation to issue advance warnings about impending floods so as to alert the agencies concerned with rescue and relief to organise themselves and also to put into action the flood fighting and maintenance organisations to gear up to the emergency. The Central Flood Forecasting Organisation with headquarter at Patna has three circles at Gauhati, Maithon and Delhi with divisions at Dibrugarh, Gauhati, Jalpaiguri, Asansol, Patna, Lucknow, Jhansi, Bhubaneshwar, Hyderabad and Surat. The warnings issued by control rooms under these divisions have been found to be extremely useful to the public

In the Fifth Plan, an outley of Rs 345.27 crores has been proposed for flood control as compared to Rs 162 crores in the Fourth Plan to provide reasonable protection to an additional area of 18 lakh hectares. The expenditure during the first two years of the Fifth Plan has been Rs 97 7 crores and the outlay for 1977-78 is about Rs 82 crores

Floods of 1976

During 1976, the South West monsoon started early in June but there was long spell of no-rain in the early part of July The cumulative monsoon rainfall has been normal in most parts of the country, excess in certain localised areas and deficient mainly in parts of Kerala and Tamil Nadu There were local heavy spells of rain during August in Jammu and Kashmir, Punjab, Haryana and Rajasthan In early June, Gujarat and Maharashtra were hit by severe cyclones resulting in heavy rains and consequent floods Floods causing considerable damage have occured in parts of Andhra Pradesh, Assam, Gujarat, Haryana, Manipur, Maharashtra, Punjab, Rajasthan, Tripura and Uttar Pradesh As against the average annual total loss of Rs 210 40 crores the damage reported in 1976 was Rs 886 crores

Floods of 1977

During the 1977 monsoon, there were spells of heavy rainfall in some parts of the country which caused floods and drainage congestion, resulting in damage to crops, property and loss of life The total rainfall from 1 June to 28 September 1977 was normal or above normal in most parts of the country except Nagaland, Manipur, Mizoram and Tripura, East Uttar Pradesh, Marathwada and Telangana where it was deficient Floods causing considerable damage occurred in parts of Assam, Bihar, Gujarat, Haryana, Rajasthan, Uttar Pradesh, West Bengal and Delhi Bombay and Calcutta cities and their outskirts were affected by heavy rains in the last week of July The floods created a critical situation in western Delhi in the first week of August

Preliminary assessment made so far indicate that an area of 100.1 lakh hectares and a population of 271.4 lakh were affected. Crops over an area of 62.6 lakh hectares valued at Rs 212.1 crores, 3,59,516 houses valued at 20.9 crores and public utilities worth Rs 39.3 crores were damaged. Five hundred and forty three human lives and 4,666 cattle head were lost. Over 80 per cent of the damage reported so far is in the states of Gujarat, Haryana Rajasthan than and West Bengal.

ANTI-SEA EROSION

India has a coastline of 5,700 kms. In all the seven states which share the sea front, the problem of sea erosion exists. It is, however, of a serious nature in a stretch of about 320 km of the 560 km coastline in Kerala. Protection measures have been taken up since the end of the First Plan, and by the end of the Fourth Plan a length of 114 km had been protected at a cost of about Rs 17.5 crores. Of this Rs 10 crores were spent during the Fourth plan. For the Fifth Plan a provision of Rs 20 crores has been made. During the first three years of the Fifth Plan, an expenditure of Rs 5.94 crores had been incurred. During the current years, the outlay proposed is Rs 3.00 crores. The total length of the coastline protected so far is about 175 km.

A Beach Erosion Board was set up by the Government of India in 1966 for reviewing the anti-sea erosion programme in Kerala. The Board was reconstituted in 1971, enlarging its scope of work to cover the sea erosion problem in the entire country.

CENTRAL ORGANISATIONS

There are three central organisations, which are responsible for planning, development and research in the field of irrigation.

The Central Water Commission is responsible for initiating and co-ordinating, in consultation with state governments, schemes for control, conservation and utilisation of water resources for purposes of irrigation, navigation and flood control throughout the country. The Commission has been playing an important role in planning, investigation, designing and research on multipurpose river valley projects and flood control. The Board also disseminates the results of the research studies and information on irrigation and power development both inside as well as abroad.

The Central Board of Irrigation and Power, constituted in 1927, initiates fundamental research in the fields of irrigation and power and co-ordinates the work of research stations established in different parts of the country.

The third organisation is the Central Water and Power Research Station at Khadakvasla near Pune. For details see Chapter 7, 'Scientific Research'.

Water and Power Consultancy Services

Water and Power Development Consultancy Services (India) Limited (Wapco) was registered as a company in 1969 wih a view to making India's expertise in irrigation and power available to developing countries. The principal organisations of the Government of India which are constituents of this company are : the Central Water Commission, Central Electricity Authority, Geological Survey of India, Meteorological Department, Survey of India, Central Ground Water Board, Indian Council of Agricultural Research, National Institute of Community Development and National Environmental Engineering Research Institute.

The Company provides consultancy services in the fields of irrigation and drainage, integrated agricultural development, flood control, water supply, ground water exploration, hydro and thermal power generation, transmission and distribution, etc.

Wapco has already completed several projects abroad and provided experts and consultancy services to many countries, including Afghanistan, Bhutan, Burma, Fiji Islands, Indonesia, Iraq, Laos, Malaysia, Mauritius, Nepal. Nigeria, Phillippines, Sri Lanka and Tanzania. The Company is also handling several major jobs at home.

**INTERNATIONAL AGREEMENTS**

**Indus Commission**

India and Pakistan signed the Indus Water Treaty on 19 September 1960, fixing and delimiting the rights and obligations of the two countries with regard to the use of the waters of the Indus river system. It came into force with retrospective effect from 1 April 1960. As envisaged in the treaty, a permanent Indus Commission, representing both the governments, has been set up to establish co-operative arrangements for the implementation of the treaty.

**Indo-Bangladesh Rivers Commission**

The Indo-Bangladesh Joint Rivers Commission was established in 1972 to maintain liaison between the two countries in order to ensure the most effective joint efforts in maximising the benefits from common river systems, to carry out surveys of the river systems shared by them and to formulate joint flood control projects. The Commission has taken up the study of many short and medium-term schemes of mutual benefit.

**Indo-Hungarian Cooperation**

The Minister of Agriculture and Irrigation, accompanied by a delegation of officials, visited Hungary in September 1975. During the visit the delegation had a series of discussions with the Hungarian counterparts leading to signing of two protocols between India and Hungary, envisaging mutual co-operation in the fields of (i) agriculture and food processing, and (ii) water resources development and management.

India has agreed to assist Afghanistan in implementing their micro-hydel schemes at Faizabad, Bamiyan and Khulm by supplying electrical equipment and consultancy services

# 15 RURAL DEVELOPMENT

## COMMUNITY DEVELOPMENT

Since the launching of the Community Development Programme in 1952 and the introduction of Panchayati Raj later—there are at present 5,026 community development blocks and 2,21,674 village panchayats in India—the endeavour has been to create a suitable climate and provide a viable infrastructure for all round development in the rural areas. The essential specialist services were provided through the extension agency.

Rural development is a comprehensive programme of activities which include agricultural growth, development of economic and social infrastructure, fair wages as also housing and house-sites for the landless, village planning, public health, education and functional literacy, communications, etc. It has two important aspects, viz., economic development with a close interaction between different sections and sectors, and economic growth specifically directed to the rural poor. The main thrust of attention in all the special programmes is towards weaker sections, not only in terms of providing incentives for development but also linking of economic activities into a well-planned infrastructure In this multi-pronged effort involving development and conservation of resources—land, water and human—the objective is to raise the standard of living and quality of life, particularly of the poor Rural development thus encompasses both spatial and functional integration of all relevant programmes bearing on increased agricultural production and provision of gainful employment to rural people.

A Programme of Integrated Rural Development was launched during 1976 This programme lays emphasis on tackling problems of unemployment and under-employment and rural poverty by optimum mobilisation and utilisation of manpower and other resources available in rural areas Twenty districts in eighteen States have been selected where the scheme will be initially operated and agencies have been designated which will be responsible for carrying it out Various programmes of the Department are continually being reoriented to meet the concept of Integrated Rural Development with focus on the 'weaker section'.

A new scheme for providing infrastructural facilities in rural areas has been introduced during 1977-78. Special programmes for the weaker sections like the small and marginal farmers and agricultural labourers development programmes, drought-prone areas programme, tribal and hill areas projects, whole village Development Programme, Integrated Rural Development Programme, agricultural credit, and Agricultural Marketing etc., continued to receive special attention

**Programme Pattern**

Initially, a community development block covered an area of about 1,300 sq. km with about 300 villages and a population of about 2 lakhs The pattern was revised from 1 April 1958 A block now covers an area of about 620 sq km with 110 villages and a population of about 92,000 A block has two active stages of operation, each stage covering five years to be followed by post stage II phase For implementing the programme in the blocks, there is a schematic budget provision of Rs 12 lakhs for stage I and Rs 5 lakhs for stage II.

Supply of funds for the blocks remained mainly the responsibility of the central government till the end of the Third Plan (1966). But from the beginning of the Fourth Plan (April 1969), the financial arrangements became the responsibility of the states.

Table 15.1 gives details of the coverage and statewise distribution of community development blocks.

TABLE 15.1
COVERAGE AND DISTRIBUTION OF COMMUNITY DEVELOPMENT BLOCKS

(*As on* 1 *April* 1976)

| State/Union Territory | Number of blocks | Population covered (lakhs) | Villages covered ('00) |
|---|---|---|---|
| Andhra Pradesh | 324 | 380 | 296 |
| Assam | 130 | 142 | 234 |
| Bihar | 587 | 527 | 782 |
| Gujarat | 218 | 218 | 189 |
| Haryana | 87 | 94 | 71 |
| Himachal Pradesh | 69 | 33 | 190 |
| Jammu and Kashmir | 73 | 38 | 68 |
| Karnataka | 175 | 240 | 298 |
| Kerala | 144 | 194 | 16 |
| Madhya Pradesh | 457 | 368 | 771 |
| Maharashtra | 343 | 383 | 389 |
| Manipur | 14 | 9 3 | 20 |
| Meghalaya | 24 | 9 4 | 50 |
| Nagaland | 21 | 4 9 | 10 |
| Orissa | 314 | 208 | 517 |
| Punjab | 117 | 115 | 130 |
| Rajasthan | 232 | 226 | 359 |
| Sikkim | n a | n a | n a |
| Tamil Nadu | 374 | 330 | 171 |
| Tripura | 17 | 15 | 52 |
| Uttar Pradesh | 875 | 773 | 1,249 |
| West Bengal | 335 | 358 | 416 |
| Andaman & Nicobar Islands | 5 | 1 2 | 22 |
| Arunachal Pradesh | 43 | 4 5 | 30 |
| Chandigarh | 1 | 0 2 | 0·3 |
| Dadra & Nagar Haveli | 2 | 0 7 | 1 |
| Delhi | 5 | 4 2 | 3 |
| Goa, Daman and Diu | 12 | 8 0 | 4 |
| Lakshadweep | 4 | 0 3 | 0 2 |
| Mizoram | 20 | 2 3 | — |
| Pondicherry | 4 | 4·5 | 4 |
| ALL-INDIA | 5,026 | 4,697 | 6,325 |

n a —Not available

**Expenditure under the Plans**

The expenditure on community development in the first three Five Year Plans was Rs 501 crores. From 1967-68 to 1973-74, it was Rs 172 38 crores The Fifth Plan outlay for community development and Panchayati Raj Sectors for all states, union territories was of the order of Rs 161 crores An outlay of Rs 28 54 crores for the year 1977-78 has been approved

**Policy**

The Department of Rural Development in the Ministry of Agriculture and Irrigation lays down policy relating to the community development programme and also formulates the pattern of expenditure to be incurred in the blocks. The responsibility for the execution of the programme is that of state governments.

**Advisory Body**

To advise the central government on the twin programmes of community development and Panchayati Raj, a joint consultative council was

constituted in 1971. Till then there were two separate councils, one each for community development and Panchayati Raj.

Organisation

A Development Commissioner is in charge of the community development programme in every state. He also co-ordinates the policies and programmes of different state departments connected with rural development. In some states, however, there is integrated department of agricultural production and rural development under a Secretary called the Agricultural Production Commissioner.

At the district level, the Zila Parishad is responsible for co-ordination and implementation of the programme. The Parishad consists of elected representatives of the people, including the presidents of the Block Panchayat Samitis, members of Parliament and members of Legislative Assemblies from the concerned districts. At the block level, the Panchayat Samiti is responsible for the programme. Its members include elected Sarpanch, presidents of village Panchayats and a few co-opted persons representing women, scheduled castes and tribes. The administrative personnel, consisting of a Block Development Officer and eight Extension Officers who are experts in different fields, such as agriculture, co-operation, voluntary organisations, six youth clubs, Farmers' Forums and animal husbandry, work under the direction of Samiti and Mahila Mandals, supplement the work of the Panchayats At the village level, while the Panchayat is in overall control of the programme helped by associate organisations, the Gram Sevak acts as a multi-purpose extension agent having about 10 villages in his charge.

SPECIAL PROGRAMMES

Small Farmers, Marginal Farmers and Agricultural Labourers' Programmes

A number of special programmes are in operation for the benefit of the rural population. During the Forth Five Year Plan, 46 Small Farmers' Development Agencies (SFDA) and 41 Marginal Farmers and Agricultural Labourers' (MFAL) projects were initiated to improve the economic condition of the weaker section and generate better self-employment opportunities. These projects seek to tackle the problems of weaker sections through special agencies set up for the purpose. In the Fifth Year Plan all the SFDA/MFAL projects have been made composite and each agency required to assist small and marginal farmers and agricultural labourers in its area of operation. The number of projects has been increased from 87 to 160 in the Fifth Plan. Each new agency is expected to cover 50,000 beneficiaries, while agencies continuing from the Fourth Plan will extend coverage upto 30,000 beneficiaries during the extended period of three years i.e. 1976 to 1978-79. The outlay for each SFDA/MFAL project has been fixed at Rs 1.5 crores for the project period. For the purpose of these programmes, a small farmer is defined as one having a land holding of 2.5 to 5 acres and marginal farmer below 2.5 acres of dry land. In the case of irrigated lands, the limits of land holding are generally 50 per cent of those indicated above. The landless agricultural labourer is taken as one who does not have any land-holding, but has a permanent homestead and deriving more than half of his earning from agricultural pursuits.

The functions of the agencies are to identify the participants according to norms laid down by the Government of India, draw up suitable programmes for improved agriculture and subsidiary occupations, arrange credit through institutional sources and get the programmes executed through the existing development and extension agencies in the project area.

The agencies implement various types of developmental schemes for the identified participants. The main thrust in the project areas is on crop husbandry. Programmes of subsidiary occupations are also taken up depending upon the suitability of the area for a particular programme and the availability of marketing facilities. The programme for improved agriculture includes land development, soil conservation, minor irrigation, horticulture, demonstrations, introduction of new and improved varieties, adoption of multiple cropping pattern, etc. Considerable stress is also laid on the adoption of dry land farming techniques and water harnessing measures in rain-fed areas. The subsidiary occupations include supply of milch animals, cows and buffaloes, poultry, piggery, sheep and goat rearing and fisheries.

**Financial Assistance**

The identified small farmers are allowed subsidies upto 25 per cent and marginal farmers and agricultural labourers up to 33 1/3 per cent of the investment cost for various programmes like minor irrigation, land development, soil conservation, animal husbandry, etc. A ceiling of Rs 3,000 has been laid down for such subsidy from project funds to an individual participant during the entire project period. In the case of group community projects like community irrigation works, a liberal subsidy of 50 per cent is allowed from the project funds. The agencies also provide subsidy on custom service charges provided such services are arranged through state agriculture department or agro-industries corporation or other recognised institutions.

The agencies also provide risk fund at 4 per cent on the additional quantum of loan advanced to identified beneficiaries to the primary agricultural credit cooperative societies and at 2 per cent to the central cooperative banks. The same rates apply for medium-term loans also but calculated with reference to the total quantum of loans. For long term loans, it is at the rate of 2 per cent of the total quantum of loans advanced to identified participants, and is payable to the central land development banks in each state. As subsidies from the project funds are paid in kind through the financing institutions and are linked with loans, the identified participants are also encouraged to become members of cooperatives. For this purpose, interest-free loan for the purchase of four shares or Rs 40 is given by the agency to the small marginal farmers and agricultural labourers. Similarly medium-term loan up to Rs 10 lakhs is given by the agencies to the central cooperative bank in the project area where the bank is not able to advance loans for lack of resources to provide non-overdue cover for borrowings from the Reserve Bank of India. In addition, emphasis is laid on linking of credit with marketing and the agencies provide 2 per cent rebate on interest on short-term production loans if the agricultural produce is marketed through the cooperatives Some assistance is also available for the development of regulated markets and construction of storage godowns.

During the Fourth Plan, agencies allowed managerial subsidy to cooperative institutions and also extended assistance for development of infrastructural facilities so as to support various programmes for the beneficiaries During the Fifth Plan, however, managerial subsidy is limited to technical staff employed by the farmers service societies and large sized multipurpose societies Small assistance for infrastructure development like setting up of milk collection centres, chilling plants, etc is also available to cooperatives. The programmes, by and large, are being implemented through existing organisations, govern-

ment departments and extension staff of the state government. Credit for participants is arranged through the cooperatives and commercial banks in the project areas.

Beneficiaries

The total Fifth Plan provision for SFDA/MFAL projects has been laid at Rs 174.50 crores. Till March 1977, since inception of the projects, the Agencies had identified as many as 122.36 lakh small farmers, marginal farmers and agricultural labourers. Of these, as many as 50.77 lakh have been enrolled as members of cooperative societies. Under minor irrigation 4.76 lakh small/marginal farmers had been assisted to take up digging of wells, tubewells, pumpsets and other minor irrigation works. The other important programmes under which agricultural labourers have also derived substantial benefits are those of subsidiary occupation and as many as 4.26 lakh small/marginal farmers and agricultural labourers had been assisted under schemes like dairying, poultry, piggery, sheep and goat rearing, fisheries, etc. About 34 lakh participants have benefited under improved agriculture.

The Government of India has released grant in aid to the tune of 112.79 crores to the projects up to the end of March 1977 since inception and out of this, the agencies have utilised Rs 112.70 crores by the end of March 1977. These agencies have mobilised Rs 71.05 crores as short term loans during the year 1976-77 and Rs 184.61 crores as medium and long-term loans through cooperatives and commercial banks since inception of the projects

During 1976-77 these agencies have been able to identify 37.37 lakh participants including 9.51 lakh belonging to scheduled castes and scheduled tribes About 15.99 lakh of the participants have been enrolled as members of the cooperatives. About 9.28 lakh participants have benefited under improved agriculture. A total grant in aid of Rs. 27.50 crores has been released to the SFDA projects during 1976-77. By the end of March 1977 the agencies had utilised Rs 31.86 crores including the unspent balance of the previous years.

Drought-Prone Areas Programme

The drought-prone areas programme aims at conservation, development and utilisation of land, water, livestock and human resources in areas covered by 74 districts in 13 States. These areas have been selected on the basis of high periodicity of drought, low and erratic distribution of rainfall and low extent of assured irrigation. During the Fourth Plan period, Rs 92.27 crores were spent on the programme, which included irrigation, soil conservation, afforestation, rural communications and other miscellaneous schemes. The Fifth Plan programme consists of integrated area development in agricultural and allied sectors of the rural economy The programme covers development and management of irrigation sources, dry land development, irrigated agriculture, cattle and dairy development, sheep and pasture development, afforestation, horticulture, fisheries, sericulture, etc

During the Fourth Plan 15,924 minor irrigation works were completed creating an irrigation potential of about 1 64 lakh hectares. Over 4 61 lakh hectares of land were treated with soil Conservation measures Afforestation was taken more over an area of 0 97 lakh and roads were constructed to a length of about 8,836 kms. The programme resulted in the generation of employment of the order of 1,500 lakh mandays

During the Fifth Plan, provision of Rs 181.50 crores exists for the

programme This includes provision of Rs 24 crores for taking up medium irrigation schemes in some of the backward areas, Rs 3 crores for the DPAP central cell, training and research and Rs 154.50 crores for assisting state governments on matching contribution

The total size of the annual plan during 1977-78 would be of the order of about Rs 87.89 crores (both state and central allocation)

**Pilot Project for Tribal Development**

A special programme called the Pilot Project for Tribal Development was launched during the last quarter of 1971-72 for the development of six selected tribal areas in Andhra Pradesh, Bihar, Madhya Pradesh and Orissa Under this programme, special Tribal Development Agencies (TDA) are studying in depth the problems of tribal areas relating to the economic development, communication and administration, agriculture and allied sector activities This programme will, for the present, continue till 1978-79.

Two more projects, similar to the existing six have been taken up as part of the Fifth Plan An amount of Rs 12 crores has been allocated in the Fifth Plan for all the 8 TDA projects An expenditure of Rs 2 43 crores was incurred during the year 1976-77. The budget provision for 1977-78 provides for Rs 2 47 crores The total grants-in-aid released to these Agencies since their inception was Rs 12.03 crores upto the end of June 1977.

**Hill Areas Development Programmes**

For the all round development of agriculture and improvement in the living conditions of the farmers in the hilly areas, some pioneering projects were taken up in Himachal Pradesh, Tamil Nadu and Uttar Pradesh under the Indo-German Assistance Programme Based on the encouraging results achieved in these projects, two more projects in Manipur and Uttar Pradesh were taken up towards the end of the Fourth Plan, financed entirely out of domestic resources Another project has since been taken up in Uttar Pradesh These projects will continue during the Fifth Plan period with an outlay of Rs 2 70 crores A provision of Rs 50 lakhs was available during 1976-77 for this scheme The entire amount was released For 1977-78 a provision of Rs 70 lakhs has been approved

**Applied Nutrition Programme**

The Applied Nutrition Programme, a centrally sponsored programme in collaboration with UNICEF, FAO and WHO, is intended to educate the rural people on improved nutrition The programme specially aims at securing the needed nutritional supplements for children below 5 years and expectant and nursing mothers Gram Panchayats, Yuvak and Mahila Mandals are associated with the production of nutritional foods

During the Fourth Plan 1 181 blocks were covered under the programme; one hundred new blocks were taken up during 1976-77 with an outlay of Rs 56 crores. During the Fifth Plan 700 new blocks are proposed to be covered with revised outlay of Rs 12 98 crores. During the first 3 years of 5th Plan period 294 blocks were covered During 1976-77, a provision of Rs 150 lakh was made, out of which Rs 138 72 lakhs was utilised For 1977-78, Rs 92 48 lakhs have been provided

**Scheme for the Generation of Additional Employment Opportunities**

The scheme envisages augmenting the resources of the State Government/Union Territories for incurring expenditure on maintenance of public works Initially it will be in force for a period of two years

beginning from 1 April 1977. Under this scheme additional quantities of wheat and milo equivalent in money value to 30 per cent of the State/Union Territory Governments current level of expenditure on the maintenance of public works in rural areas will be made available to the concerned government free of cost. The wheat and milo thus provided are to be utilised for payment of part or whole of the wages of wrokers engaged on the maintenance of public works in rural areas. The work which will be eligible for assistance under the scheme, would consist of major, medium and minor irrigation works, floods control embankments, soil and water conservation works and afforestation works on government and community lands and roads, excluding national/state high-ways and roads in urban areas.

OTHER PROGRAMMES

Besides the special programmes, a number of other programmes are also being implemented for the integrated developement of rural areas. These are briefly described below :

Agriculture and Allied Programme

For motivating farmers to maximise production, community development and Panchayati Raj agencies are given top priority to agriculture and allied programmes. These include formulation and implementation of field programmes for the development of horticulture, animal husbandry, distribution of improved seeds, fertilizers, pesticides, construction and maintenance of minor irrigation works, bunds and a host of other activities.

A review of information received from the blocks for the year ending March, 1976 reveals that 7.40 million quintals of improved seeds were distributed as against 7.32 million quintals during the previous year. The quantity of chemical fertilizers distributed increased slightly from 38.84 million quintals to 47.39 million quintals and the average per block increased from 8,234 quintals to 9,963 quintals. The value of improved implements distributed, amounted to Rs. 20.4 million during 1975-76.

Whole Village Development Programme

The Whole Village Development Programme being implemented during the Fifth Plan lays stress on both special and functional integration of all the programmes connected with agricultural production. The Central idea of the programme is to achieve the social objective by reducing disparities in incomes and increasing employment opportunities. The basic components of the programme are consolidation of holdings, overall land development, planning through irrigation support and restructuring of the cropping pattern. The Fifth Plan outlay for this new scheme is Rs 5 crores. This has been revised to Rs 1 98 crores during mid-term appraisal. The outlay for the year 1976-77 is Rs 10 lakhs. The same was utilised for meeting the cost of Bench Mark surveys and assistance to States. For the year 1977-78, Rs 50 lakhs has been approved.

In the first instance, Bench Mark Surveys were undertaken in Bihar, Orissa, Tamil Nadu and Uttar Pradesh. The survey and feasibility reports in respect of Tamil Nadu and Uttar Pradesh have been submitted

ANIMAL HUSBANDRY

In the field of animal husbandry, there has generally been an improvement during 1975-76 compared to the achievement in 1974-75. The average of animals supplied per block was 13 as against 11 during

1974-75. The average number of poultry birds supplied per block increased from 374 to 382 in 1975-76. Similarly average number of animals castrated and inseminated per block has also increased to 769 and 558 from 748 and 519 respectively in 1974-75.

HEALTH AND FAMILY PLANNING

To create an awareness and responsiveness among the village people about the need to have a small family, family planning receives high priority in the block programmes. A total of 5,239 primary health centres and 38,502 family planning centres were functioning in rural areas up to the end of March 1975.

It has been realised that for the ultimate success of family planning programmes in the rural areas, population education should form an integral part of rural extension package. Necessary action in this regard has been initiated in close collaboration with the Directorate of Extension of Ministry of Agriculture and the Department of Family Welfare An inter-departmental committee has also been set up in the Department of Rural Development in this connection.

Promotion of Voluntary Schemes and Social Action Programme

Promotion of Voluntary Schemes and Social Action Programmes in rural areas are new central sector schemes being implemented during the Fifth Plan period. A total outlay of Rs 3.78 crores was originally approved for the scheme This was reduced to Rs 1.59 crores at the time of mid-term appraisal of the plan. The programme under the scheme include various measures for the promotion and strengthening of Mahila Mandals and Yuvak Mandals such as developing a strong model organisation, introducing simplified system of registration for these associate organisations, training their office-bearers, helping them to undertake definite activities, giving them maintenance grants, organising their federations on experimental basis, conducting research studies about their working, giving incentives, awards to Mahila Mandals and imparting leadership training to selected rural women. The cooperation of all-India Voluntary Organisations is also to be secured in promoting voluntary action through grants and technical guidance for formation and implementation of experimental projects of community action and public cooperation Some special projects of public cooperation initiated by State Governments which aim at enhancing people's participation in rural development work are also being assisted under the scheme During 1976-77 against an outlay of Rs 25 lakhs, Rs 23 50 lakhs were utilised. An outlay of Rs 45 lakhs has been approved for different components of the scheme during 1977-78

Rural Credit

The policy in the field of agricultural credit continues to be progressive institutionalisation of credit under a 'multi-agency approach'. The main thrust during the Fifth Five Year Plan is to increase the quantum of insititutional agricultural credit, improve the quality of service by providing integrated credit structure at the village level which can extend credit, arrange services and supplies needed by the farmers and to direct a large proportion of it to serve weaker sections of the farming community. A conscious attempt is also being made to fill up gaps in institutional credit structure and ensure better regional distribution

Cooperatives continue to be the main institutional source for provision of agricultural credit. During the cooperative year 1974-75 (ending with 30th June, 1975) the short and medium term credit

advanced by primary agricultural credit societies was Rs 781 crores, and Rs 118 crores respectively; it is estimated to be of the order of Rs 870 crores and Rs 110 crores respectively in 1975-76. In the sphere of long-term development finance for agriculture, the land development banks constituted the main source for the provision of credit. While the quantum of fresh long-term loans issued by the cooperative land development banks was only Rs 12 crores in 1960-61, it has gone up to Rs 181 crores in 1974-75 and the estimated loaning during 1975-76 is of the order of Rs 193 crores.

Commercial banks are emerging as the second most important institutional source for providing agricultural credit to the farmers The level of out-standing credit of direct financing by scheduled commercial banks for agricultural operations stood at Rs 648.43 crores as on 30 June 1976 It is being increasingly recognised that there are limitations in commercial banks undertaking direct financing of agriculture, they will, therefore, progressively utilise the cooperative system for meeting agriculture credit

Regional Rural Banks, a new set of institutions sponsored jointly by Government of India, State Governments and commercial banks, are being established in areas where the existing institutional structure is inadequate and potential for agricultural development is good. They have a special responsibility for financing weaker sections of the society 47 Regional Rural Banks have been established by March 1977. 45 of these banks had advanced Rs 13.09 crores upto the date and mobilised deposits to the tune of Rs 10.25 crores. Special emphasis continues to be laid on institutional credit for weaker sections. The loaning policies and procedures of credit institutions have been under continuous review during the past few years in order to make agricultural credit production-oriented rather than security-oriented and to assist weaker sections of the farming community to obtain credit with greater facility.

**Agricultural Marketing**

The scheme for loans to selected regulated markets in backward areas was started during the Fourth Plan. Assistance of the order of Rs 23 lakhs for 21 markets in different states was given under this scheme. In the Fifth Plan, emphasis is being laid on the development of regulated markets situated in Command areas and those catering to important commercial crops like cotton, jute, tobacco, groundnut, coconut, cashewnut, potato and onions. The outlay for the scheme in the Fifth Plan is Rs 700 lakhs. During 1976-77 Central assistance of Rs 94 lakhs was given to 45 market Committees.

To ensure that growers get prices according to the quality of their produce, grading was introduced under the Agricultural Produce (Grading and Marketing) Act To keep up the standard of grading under Agmark system more laboratories for scientific testing are being set up.

In addition to the existing Central Sector Scheme, a new scheme for the development of rural markets has been launched with an outlay of Rs 5 crores for 1977-79. The new scheme is meant for the development of primary rural markets and wholesale markets located in tribal, hill and drought prone areas

**Farmers' Service Societies**

A significant experiment is being conducted organising Farmers' Service Societies (FSS) in pursuance of the recommendations made by the National Commission on Agricultural. These societies are to

disburse all types of credit required, supply inputs including fertilizers, arrange for processing and marketing, wherever feasible, and undertake all connected activities directly or in conjunction with other organisations. These societies can be financed either by commercial banks or cooperative banks. Necessary steps are being taken by the state governments/union territories to organise at least one society in each of the districts covered by special programmes like SFDA/MFLA Development Agencies, Drought Prone Areas Programme and the Command Area Development Programme

Involvement of Industrial and Mercantile Houses in Rural Development

Steps have been taken to bring about the active and meaningful involvement and participation of industrial and mercantile houses in programmes of rural development Quite a few of these houses were already engaged in certain developmental activities in the rural areas, but these were largely in the nature of welfare activities In some cases, however, really useful rural development programmes have also been taken up The present endeavour of the department is that instead of taking up isolated activities, commercial houses can be encouraged and guided to take up programmes which will be helpful in transferring the modern agricultural technology to small and marginal farmers and improving the lot of the rural artisans and landless agricultural labourers These may ultimately result in the overall development of the rural areas, particularly of the weaker sections.

## TRAINING

With a view to developing proper understanding of the basic objectives underlying the rural development and Panchayati Raj programmes suitable training is given to concerned officials and non-officials at composite training centres functioning under the administrative control of the various state governments

The National Institute of Community Development, Hyderabad, functions as an autonomous apex body for providing training in the philosophy and aims of community development It also serves as a clearing house of information on community development and Panchayati Raj

Various other schemes are in operation to provide training to the rural youth (through short duration camps and encouraging economic activities through a grant of incentive awards), people's representatives in Panchayati Raj institutions and village leaders (through conferences) and school teachers (through orientation courses).

Trainees from developing countries confronting similar problems as in India in raising the living standards of rural people, have been availing of the training facilities under the Technical Co-operation Scheme of the Colombo Plan. Special Commonwealth African Assistance Plan and the Indian Technical Economic Co-operation Programme

Table 15.2 shows the achievements in selected items of activity under the community development programme ·

TABLE 15 2
ACHIEVEMENTS OF COMMUNITY DEVELOPMENT PROGRAMME

| Activity | Total achievements during | | Average achievement per block during | |
|---|---|---|---|---|
| | 1974-75 | 1975-76 | 1974-75 | 1975-76 |
| 1 | 2 | 3 | 4 | 5 |
| Agrriculture | | | | |
| Improved seeds distributed (quintals) | 70,06,000 | 73,97,000 | 1,486 | 1,556 |

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Chemical fertilizers distributed (quintals) | 38,83,900 | 4,72,33,000 | 8,234 | 9,929 |
| Chemical pesticides distributed (quintals) | 7,42,000 | 7,65,000 | 157 | 161 |
| Improved implements distributed (value in Rupees) | n a. | 1,75,91,000 | n.a | 3,698 |
| Compost pits filled (nos ) | 54,07,000 | 63,60,000 | 1,147 | 1,335 |
| II. Land Improvement | | | | |
| Land reclaimed (Hects ) | 2,01,000 | 2,39,000 | 43 | 50 |
| Area bunded/terraced (hects ) | 6,88,000 | 6,66,000 | 146 | 161 |
| III Animal Husbandry | | | | |
| Improved animals supplied (nos.) | 23,000 | 63,000 | 5 | 13 |
| Improved birds supplied (nos.) | 17,62,000 | 18,01,000 | 374 | 379 |
| Animals castrated (nos.) | 35,26,000 | 36,57,000 | 748 | 769 |
| Animals inseminated (nos ) | 24,48,000 | 26,54,000 | 519 | 558 |
| IV. Health & Rural Sanitation | | | | |
| Rural latrines constructed (nos.) | 36,000 | 29,000 | 8 | 6 |
| Pucca drains constructed (metres) | 9,14,000 | 9,48,000 | 194 | 199 |
| Village lanes paved (sq. metres) | 16,95,000 | 26,33,000 | 360 | 554 |
| Smokeless chullahs installed (nos ) | 16,000 | 15,000 | 3 | 3 |
| Gobar gas plants set up (nos ) | n a | 9,000 | n a | 2·0 |
| Drinking water wells constructed (nos ) | 14,000 | 16,000 | 2 9 | 3 4 |
| Drinking water wells renovated (nos ) | 15,000 | 20,000 | 3 | 4 |
| Primary health centres in existence (nos ) | 4,100 | 4,200 | 1 | 1 |
| Family Planning centres in existence : | | | | |
| (a) Rural (Main centres) | 5,132 | 5,132 | 1 | 1 |
| (b) Rural (Sub centres) | 21,671 | 33,370 | 5 | 7 |
| V. Social Education | | | | |
| Adult literacy centres started (nos ) | 15,000 | 18,000 | 3 | 4 |
| Adults made literate (nos ) | 3,10,000 | 3,49,000 | 66 | 73 |
| Sewing centres started (nos) | n a | 12,000 | n.a. | 2·5 |
| Women training in sewing centres (nos.) | n a | 1,38,000 | n a | 29 |
| VI. Communication | | | | |
| New Kacha roads constructed (kms) | 13,000 | 13,000 | 3 | 3 |
| Existing kacha roads improved (kms) | 41,000 | 41,000 | 9 | 9 |
| Culverts constructed (nos ) | 16,000 | 15,000 | 4 | 2 |

## PANCHAYATI RAJ

Panchayati Raj, which introduced in 1959, is a three-tier structure of local self-government at the village, block and district levels. However, the states are free to make changes in the structure to suit local conditions. All Panchayati Raj bodies are organically linked up. Special representation on these bodies is given to interests like backward classes, women and cooperative societies. Elected directly by and from among villagers, the Panchayats are responsible for agricultural production, rural industries, medical relief, maternity and child welfare, common grazing grounds, village roads, tanks and wells and maintenance of sanitation. In some places they also look after primary education, maintenance of village records and collection of land revenue

**Coverage**

Panchayati Raj now covers all the states excepting Meghālaya, Nagaland and 23 out of 31 districts in Bihar. The institution of village panchayats exists in all the union territories except Lakshadweep, Mizoram and Pondicherry.

There are at present 2,21,674 village Panchayats covering a population of 44.16 crores. In addition, there are 4,015 Panchayat Samitis and 262 Zila Parishads.

**Activities**

The Panchayat, the cooperative and the school are the basic institutions at the village level for carrying out the programme of democratic decentralisation. The elected Panchayat is in charge of all development programmes in the area. The cooperative functions in the economic sphere. The village school which is also a community centre, looks after educational, recreational and cultural needs of the people. Associate bodies, such as, women and youth organisations, farmers' and artisans' associations functioning in their respective spheres, are linked up with the Panchayat in its development activities and are supported in turn by the Panchayat in their work.

**Finance**

Panchayati Raj institutions have their own powers of taxation. They levy taxes on houses and certain types of lands, fairs and festivals and sale of goods and impose octroi duties. They also build up remunerative community assets.

The powers and responsibilities of Panchayati Raj institutions are derived not only from the respective state legislations, but also from the procedures—administrative and financial—laid down by state govments, Gujarat, Maharashtra and Tamil Nadu have invested their institutions with programme responsibilities over a wide range of activities. Some states, namely, Andhra Pradesh, Bihar, Gujarat, Maharashtra and Rajasthan have appointed high power committees to suggest improvements in the working of Panchayati Raj system. The reports of these committees are being examined by respective state governments.

**Nyaya Panchayats**

For providing a speedy and inexpensive system of justice to the villagers Nyaya Panchayats or village courts are functioning in some of the states

# 16 CIVIL SUPPLIES AND CO-OPERATION

## CIVIL SUPPLIES

The Department of Civil Supplies and Co-operation was created in October 1974 as a part of the reconstituted Ministry of Industry and Civil Supplies by synthesising the work relating to Co-operation (excluding Co-operative agricultural credit) in the erstwhile Department of Community Development and Co-operation and the work pertaining to Civil Supplies in the Ministry of Commerce. The Department of Civil Supplies and Co-operation was converted into a separate ministry in August 1976. Its functions are two-fold: those relating to Civil Supplies and allied matters and those pertaining to Co-operation. While the former include monitoring of prices, public distribution system, consumer protection, integrated management of the supply, prices and distribution of vanaspati, oilseeds, vegetable oils, cakes and fats, weights and measures and control of forward trading, the latter include general policy in the field of cooperation, matters relating to national cooperative organisations, cooperative training, education, marketing, processing and consumer cooperation.

In the past, steps had been taken to meet situations arising out of scarcity of essential commodities and rising prices. As early as 1955, the Government of India had listed a number of commodities (which number 61 now) under the Essential Commodities Act and took legal measures for preventing hoarding and blackmarketing of those "essential commodities".

**Categories of Essential Items**

After detailed consultations with concerned state ministers for food, civil supplies and cooperation and the concerned Ministries of the Government of India, specific problem areas with reference to basic needs of the weaker and vulnerable sections of the population were identified and measures taken for priority distribution of seventeen categories of essential items These items have further been divided into three broad categories according to their importance. The first category comprises foodgrains, namely, wheat and rice (including coarse grains and pulses where necessary), sugar, standard cloth, vanaspati and edible oils, kerosene oil, soft coke and salt. In the second category are cement for housing and agricultural needs, cultural paper for students, diesel oil for agricultural needs, essential drugs, soap, including washing soap, matches and soda-ash. Baby food, tyres and tubes for cycles, scooters, buses and trucks and common footwear form the third category. In addition, steps are taken to meet specific requirements of particular areas like salt in the eastern and north-eastern regions, soft coke in the northern and central regions, coarse grains and pulses for industrial and agricultural labour in several deficit areas

**Approach**

For meeting the problem of supply of some of these commodities, a two-fold strategy is adopted; first, the 'commodity approach' envisages preparation of annual commodity budgets, in the widest sense, aiming at balancing the supply and demand of these commodities;

secondly, the 'area approach' which seeks to ensure that essential commodities reach the vulnerable areas like metropolitan and large urban areas, labour concentrations in mining, industrial and plantation areas, district headquarters, hilly areas, rural areas in chronically scarcity affected or deficit districts and areas inhabited by vulnerable and poorer sections of the population

Distribution of Essential Commodities

In pursuance of the strategy, a programme was adopted for extension of the public distribution system through fair price shops and consumer cooperatives to vulnerable areas Special arrangements were made for facilitating movement of essential commodities to deficit areas; like coastal shipping for movement of salt for West Bengal and rail movement of soft coke to states in the northern region where substantial quantities were required as domestic fuel for the common man during winter A special cell was set up in the Ministry to arrange for critical inputs, specially rail movement of coal, for augmenting production in core sectors

The public distribution system now comprises over 2 44 lakh fair price shops/cooperative shops in the country as against 2 42 lakh at the end of June 1976. These fair price shops cover a population of about 56 crores. There are 56,339 retail outlets for controlled cloth out of which 45,189 are in the rural areas

Model Scheme for Distribution of Essential Commodities

A model scheme for distribution of selected essential commodities has been taken up for implementation in Delhi. The scheme removes the distinction between urban and rural areas, guarantees assured supplies of selected essential commodities by enlisting cooperation of public voluntary organisations and cooperatives and by more stringent enforcement of control orders and elimination of bogus cards.

Rice, wheat, sugar, soft coke, kerosene oil and controlled cloth are provided to consumers on ration cards. The existing channels of distribution are being further rationalised. Ward-committees comprising housewives from each mohalla or locality have been entrusted with the work of maintaining contacts with consumers, inspection of retail outlets, disseminating information to consumers relating to arrival of stocks and their distribution and attending to consumers' grievances. These committees also help in eliminating adulteration and use of inaccurate weights and measures Authority has been given to 15 women honorary social workers to exercise the powers of Civil Supplies Officers in checking fair price shops an ensuring proper distribution of essential commodities Mohalla (locality) committees have been formed in 105 panchayats and steps are under way to cover the rest of the villages

Similar model schemes are being prepared for Nainital in Uttar Pradesh, Durgapur in West Bengal, Cochin in Kerala and Coimbatore in Tamil Nadu. On the basis of experience gained from these typical rural, urban, industrial, mining and hill areas, further detailed guidelines will be provided for strengthening the public distribution arrangements throughout the country.

Co-operatives and Distribution of Consumer Articles

Co-operatives have been given a key role in the public distribution system. Government policy is to give preference to cooperatives while granting licences of fair price shops in controlled commodities A percentage of the production of manufactured articles has been earmarked, for distribution through cooperative sector. Baby food,

textiles, dry battery cells, razor blades, tyres and tubes and cycles, rickshaws and scooters have been earmarked by the manufacturers for sale through consumer cooperatives. The cooperative network is functioning as coordinating agency for distribution of controlled cloth (people's cloth) at the national level and also undertakes retail distribution. The number of retail points operating were 45,189 in rural areas and 11,150 in urban at the end of June 1976. Foodgrains are generally procured by cooperatives through the Food Corporation of India or public agencies or direct from the open market. In regard to foodgrains, the Food Corporation of India has been assigned a role in wholesale procurement, timely allocation and movement of foodgrains. The State Civil Supplies Corporations set up in the states of Andhra Pradesh, Bihar, Karnataka, Kerala, Madhya Pradesh, Punjab, Tamil Nadu, Uttar Pradesh and West Bengal, would undertake the responsibility for bulk procurement of goods and not normally cater to business in manufactured articles or in retail trade.

The four-tier structure of consumer cooperatives now covers most of the urban areas, particularly towns having a population of 50,000 and above. At the apex is the National Cooperative Consumer Federation. Then there are 14 state Federations of Consumer Co-operatives and 456 wholesale Central Consumer Cooperative Stores. The latter have 3,361 branches at the primary level. These branches and other 15,165 primary cooperative societies are engaged in the distribution of essential commodities. There are also 178 cooperative departmental stores which deal in a wide range of essential consumer commodities. The total value of consumer goods distributed by consumer cooperatives during 1975-76 through about 17,500 retail points in urban areas and about 53,000 retail points in rural areas is estimated at over Rs 990 crores.

To bring down the open market prices and also supply essential commodities in deficit areas, the National Agricultural Cooperative Marketing Federation procured stocks of various foodgrains, pulses, oilseeds, etc. The Federation played a significant role in the movement of wheat from surplus states of Haryana and Punjab to deficit states of Andhra Pradesh, Assam, Karnataka, West Bengal, etc, and procured and distributed wheat for the Delhi Administration. Consumer co-operatives distributed commodities on concessional terms to students' hostels in universities and degree colleges.

Nearly 3.82 lakh students in about 5,768 hostels are being benefited under this programme Consumer cooperatives are being encouraged to undertake manufacture of essential consumer articles of mass consumption in a bid to make available at reasonable price good quality goods to consumers.

**Production of Essential Commodities**

Various measures have been taken to augment production of essential commodities and items of mass consumption During 1975-76 there was a record production of food grains and oil seeds. There has also been significant step-up in the production of essential manufactured Commodities. In 1976, as compared to the previous year, the Production of baby food increased by 26 per cent, cultural paper by 6 per cent, soda ash by 4 per cent, matches by 6 per cent, cement by 15 per cent, pulses by 9 per cent, electrical lamps (incandescant filament) by 23 per cent, cycles by 21 per cent, and hurricane lanterns by 19 per cent.

**Prices**

There has been a persistent rising trend in the prices of essential commodities which is a matter of great concern for the central and state governments. In March 1977, the all commodities wholesale price index was 12.5 per cent higher than the index in March 1976. There was a further rise of 3.2 per cent in the all commodities wholesale price index in July 1977 over March 1976. This increasing trend in prices is a continuation of inflationary forces set in motion about 15 months ago. Consumer price index for industrial workers which stood at 286 in March 1976 increased to 312 in March 1977 i.e. by 9 09 per cent. During the same period the consumer price index for agricultural labourers moved up by 11.47 per cent i.e. from 279 in March 1976 to 311 in March 1977. There was a further rise of 11.8 per cent in the consumer price index for industrial workers and 14.34 per cent for agricultural labourers in June 1977 in comparison to March 1977. Increase in the prices of pulses, oil seeds, and edible oils is largely responsible for rise in the all commodities wholesale price index between March 1977 and July 1977.

**Steps Taken to Check Price Rise**

The Government has taken a number of short-term, medium-term and long-term measures to curb the rising trend in prices. For example, an export duty imposed on tea from 9 April 1977 and the excise rebate on its exports were withdrawn. Export of essential goods at the expense of domestic consumption was stopped. Steps were taken to import adequate quantities of edible oils and raw-cotton. States have been advised to enforce the provisions of the Essential Commodities Act vigorously. Another important step taken is the monitoring of prices and availability of essential commodities Weekly price data received from different states are tabulated and analysed for keeping a constant watch on the movement of retail prices and shortages, if any, throughout the country As a result of this measure, it has been possible to rush supplies to affected areas to meet localised shortages and to keep a continuous watch on the movement of prices.

## CONSUMER MOVEMENT

Several consumer guidance associations have been activised and are doing useful work, not only in supervising the distribution of essential commodities but also for checking trade malpractices, especially adulteration and use of inaccurate weights and measures. In the wake of rising trend in prices the consumer movement is gaining momentum, especially with the removal of the psychosis of shortages, and the emphasis on streamlining the distribution system, improvement in the quality of mass consumption goods, increasing awareness amongst women and the recognition of the rights of the consumer.

The National Consumer Protection Council under the chairmanship of the Union Minister of Civil Supplies and Co-operation is being established shortly to promote and develop consumer movement throughout the country. The Council will inform itself fully about consumers' problems, collect and disseminate information relating to consumer matters, assist the state governments in development of consumer movement, examine consumer grievances and initiate remedial action and promote equitable distribution of mass consumption commodities at fair prices

**Legal Measures**

In the complex economic system prevailing today, legislative protection is necessary to safeguard the interests of consumers. The country has taken various measures to achieve this objective.

The main legislation governing the production, procurement and distribution of essential commodities is the Essential Commodities Act, 1955 The Act was amended in 1976 to ensure quicker and more effective action against the anti-social activities of profiteers, blackmarketeers and hoarders.

Under the Monopolies and Restrictive Trade Practices Act, 1969, an inquiry into restrictive trade practices can be made by the Monopolies and Restrictive Trade Practices Commission upon receiving a complaint from any trade or consumer association having a membership of 25 or more consumers. This is a valuable right which the consumers can exercise with a view to removing artificial shortages, manipulated high prices of essential commodities, deterioration in quality of goods, etc.

Standards of Weights and Measures

The Directorate of Weights and Measures in the Ministry of Civil Supplies and Cooperation is responsible for establishing standards of weights and measures, based on the International System of Units (SI). The day-to-day enforcement is done by the states. The Directorate has prepared model enforcement bills and rules for adoption by the states. The state laws on weights and measures conform substantially to these models.

A Weights and Measures (Law Revision) Committee was set up by the Government of India to review the existing central and state laws relating to weights and measures and recommend suitable modifications to meet the needs of a developing economy.

The Committee prepared the Standards of Weights and Measures Bill and the model Bill for the states for enforcement of weights and measures. Subsequently a comprehensive Act known as "Standards of Weights and Measures Act, 1976" was passed by the Parliament and received the assent of the President on 8 April 1976 The Act provides for :

(i) the approval of model of weighing and measuring instruments before their large scale production for sale;
(ii) the regulation of inter-state trade and commerce in weights and measures and weighing and measuring instruments;
(iii) the regulation of trade and commerce in prepackaged commodities and indication on each package of the net quantity contained in the package, the retail sale price of the package and the unit sale prices, and
(iv) the standardisation of the system of packaging of commodities for sale.

The Act is likely to be made operative during 1977

In order to achieve the above mentioned objectives at an earlier date, the Government of India promulgated the Packaged Commodities (Regulation) Order, 1975, which came into effect from 2 October 1975 Its primary objective is to protect the consumer from the fraudulent practices of the traders and to apprise the consumer about : (i) the net contents of the commodity by weight, measure or number; (ii) its price; (iii) month of manufacture; (iv) name of manufacturer and (v) identity of the commodity.

This order is now to be replaced by the standards of weights and Measures (Package Commodities) Rules

The Indian Institute of Legal Metrology at Ranchi imparts training to personel of departments of Weights and Measures of the states and union territories. Nominees of foreign governments also get training

coal mines near the ports; (f) all major cities should be provided with gas plants; (g) selection of optimal technology for coal-mining should be made on economic grounds using proper weightage for availability of abundant labour, and (h) a second mine should be cut and opened at Neyveli.

**Coal Mining**

Coal mining was first started at Raniganj, West Bengal in 1774. After Independence, coal mining was stepped up and production has already risen from 3.2 crore tonnes in 1950 to well over 10 crore tonnes.

The Government of India nationalised the coking coal mines in 1972 and the non-coking coal mines the following year. As a result, the production of coal in the country is now almost completely in the public sector. The only important mines which have not been nationalised are the captive coking coal mines of the two private sector steel companies.

The production of coal in public sector is organised mainly by Coal India Limited through its subsidiary companies. These are Eastern Coal Fields Ltd., Bharat Coking Coal Ltd., Central Coal Fields Ltd., Western Coal Fields Ltd. and Coal Mines Planning and Design Institute Ltd. The Singareni Collieries Company Ltd., a public sector undertaking, is also engaged in coal production.

**Coal Washeries**

Fourteen coal washeries are operating for the beneficiation of coking coal There is also a small washery for non-coking coal. The total input capacity of the coking coal washeries is estimated at above two crore tonnes.

The Coal Board, which was the statutory body for promoting safety in coal mines and conservation of coal, was abolished with effect from 1 April 1975 under an Act of Parliament as a result of which the work of conservation and safety is undertaken directly by the coal companies Five central ropeways constructed by the Board in the Jharia and Raniganj coalfields for transportation of sand from Damodar and Ajoy rivers to coal mines for stowing have been transferred to the Coal India Ltd.

**Lignite**

Lignite, though inferior in calorific value (one tonne of Gondwana coal equals about 2 tonnes of lignite), is particularly important to Western and Southern Regions due to the geographical location of the deposits and the absence of coal in these regions. Out of a total of 21,000 lakh tonnes of lignite in the country, about 19,000 lakh tonnes are available in the Neyveli area alone.

The integrated lignite project at Neyveli was set up during the Second Plan for mining of lignite The capacity of the project is being increased in the first instance to 45 lakh tonnes and ultimately to 65 lakh tonnes from the present production of 35 lakh tonnes.

The quantity and value of coal and lignite produced during 1975, 1976 and 1977 are given in Table 17.5.

TABLE 17.5
PRODUCTION OF COAL AND LIGNITE

(Quantity in '000 tonnes)

| | 1975 | | 1976 (P) | | 1977 upto Sept. (P) | |
|---|---|---|---|---|---|---|
| | Quantity | Value (Rs '000) | Quantity | Value (Rs '000) | Quantity | Value (Rs '000) |
| Coal | 95,890 | 61,88,200 | 1,00,870 | 70,98,120 | 75,551 | 53,18,790 |
| Lignite | 2,790 | 1,44,997 | 3,886 | 1,85,854 | 3,055 | 1,54,774 |

(P)—Provisional

## OIL

Exploration for petroleum and setting up of oil refineries were taken up in right earnest only after Independence. Production of refined petroleum products, which was only 2 lakh tonnes in 1950-51, increased to 205 lakh tonnes in 1975. Production of crude oil in 1976 was over 86 lakh tonnes. About 138 lakh tonnes of crude oil was imported to meet the country's requirements in 1976.

There are two principal organisations engaged in the exploration and production of crude oil in the country They are the Oil and Natural Gas Commission, wholly owned by the Government of India, and the Oil India Ltd, a joint sector undertaking

**Oil and Natural Gas Commission**

The Oil and Natural Gas Commission (ONGC), with headquarters at Dehra Dun: has been carrying out oil exploration since 1956. Its operations extend over the entire territory of India, except certain areas leased in the north-east of the country to Oil India Ltd and Assam Oil Company and covers off-shores areas. The number of wells drilled up to 31 August 1977 was 1,468. Of these 781 were found oil-bearing and 95 gas producing Production from ONGC oil fields during 1976-77 was about 57.6 lakh tonnes

The Commission has also started oil exploration in the off-shore areas In 1973, it began drilling for oil in the Bombay High structure in the deep waters off the western coast of the country with the help of 'Sagar Samrat', a self-propelled jack-up type of drilling platform. Exploration yielded very encouraging results Production from the first two development wells started with effect from 21 May 1976. At present, besides 'Sagar Samrat', three more drilling units, on charter hire, are operating in the Bombay High area

ONGC also undertakes exploration for oil in foreign countries At present, its subsidiary, Hydrocarbons India Ltd (HIL), is drilling for oil in an off-shore concession in Iran in partnership with three foreign companies The share of HIL is one-sixth of the oil produced ONGC has also secured a concession for oil exploration in Iraq which will also be handled by HIL

Under a contract with Tanzanian Government, ONGC commenced drilling of a well in Songo-Songo Island in June 1976, Drilling of a well was completed in July 1977 The presence of gas has been indicated in this well

**Oil India Ltd.**

Oil India Ltd. (OIL), in which the Government of India and the Burmah Oil Company have equal shares, was incorporated in Assam in 1959 for the exploration and production of crude oil (including natural gas) in a limited area of Assam and Arunachal Pradesh and for the construction of a pipeline to transport crude oil to the two public-sector refineries at Gauhati and Barauni and the private sector refinery at Digboi

The Company had drilled 378 wells and produced about 400 lakh tonnes of crude oil by 31 August 1977. The Company produced about 31 lakh tonnes of crude oil during 1976-77. The capacity of its pipeline has been expanded to carry 22.5 lakh tonnes of ONGC crude per annum

**Refineries**

There are at present ten refineries, nine in the public sector and one in the private sector The ten refineries together processed 2.27 crore

tonnes of crude in 1976, 2 11 crore tonnes in the public sector and 15 99 lakh tonnes in the private sector.

The private sector refinery (Assam Oil Company) is at Digboi. The Burmah Shell Refinery at Trombay and the Caltex Refinery at Vishakhapatnam were taken over by the government in 1976, and are now renamed Bharat Petroleum Corporation Ltd. and Caltex Oil Refining (India) Ltd. respectively. The other public sector refineries are at Gauhati, Barauni, Koyali, Cochin, Madras, Bombay, (HPCL) and Haldia The refineries at Gauhati, Barauni, Koyali and Haldia are owned by the Indian Oil Corporation, while those at Cochin, Bombay and Madras are owned by three separate refinery companies.

*Gauhati*

The refinery at Gauhati started operations in 1962. It has a capacity of 8 80 lakh tonnes In 1976, it processed 8 23 lakh tonnes of crude oil.

*Barauni*

The refinery at Barauni has a capacity of 30 lakh tonnes per annum. It processed 28 35 lakh tonnes of crude in 1976.

*Koyali*

The Koyali refinery near Vadodara processes indigenous crude oil discovered in the Gujarat region. It refined 41.23 lakh tonnes during 1976 The capacity of the refinery is being increased from 43 lakh tonnes to 73 lakh tonnes and the project is expected to be completed in 1977.

*Madras*

The Madras Refineries Ltd, a joint venture of the Government of India (owning majority shares), the National Iranian Oil Co., and Amoco, a subsidiary of the Pan American International Oil Co, established a refinery at Manali near Madras. The refinery, which commenced production in 1969, processed 26.03 lakh tonnes of crude oil in 1976.

*Cochin*

The Cochin Refineries Ltd., in which the Government of India holds majority shares and Phillips Petroleum Co of the USA provides technical and financial collaboration, established an oil refinery with a capacity of 25 lakh tonnes per annum at Cochin in 1966. Its capacity has been increased to 33 lakhs tonnes per annum During 1976, the refinery processed 23.8 lakh tonnes of crude

HPCL

The Esso Eastern Inc USA, which had a refinery at Bombay signed an agreement with the Government of India on 14 March 1974 under which the Government purchased 74 per cent shares in Esso Standard Refining Co of India Ltd and 24 per cent additional shares in Lube India Ltd in which the Government had already 50 per cent shares These two companies were subsequently merged to form Hindustan Petroleum Corporation Ltd on 15 July 1974. The refinery processed 28.3 lakh tonnes of crude oil in 1976 and its Lube oil production during the year was 1.6 lakh tonnes

Bharat Refinery

M/s Burmah Shell which had a refinery at Trombay (Bombay) signed an agreement with the Government of India on 24 January 1976, under which Central Government had taken over 100 per cent shares of the company The Company, now renamed Bharat Petroleum Corporation Ltd, processed 37.5 lakh tonnes of crude during 1976.

*Haldia*

The refinery has a capacity of 25 lakh tonnes per annum and is located at Haldia in West Bengal. It has been set up by the Indian Oil Corporation with French and Rumanian collaboration. The project consists of two sectors, namely, the fuel sector and the lube sector. The fuel sector was commissioned in January 1975. The lube sector is expected to be put on trial runs shortly.

NEW REFINERY PROJECTS

*Bongaigaon*

A refinery with an annual capacity of 10 lakh tonnes is being established at Bongaigaon in Assam to process crude oil produced in the Assam fields by OIL and ONGC and transported through the existing Oil India pipeline from Naharkatiya. The capacity of the pipeline is being expanded to carry additional crude to the Bongaigaon refinery. The refinery is expected to go on stream in 1977-78.

*Mathura*

The biggest refinery in the country is being set up at Mathura in Uttar Pradesh with a capacity of 60 lakh tonnes per annum Crude oil for the refinery to be obtained through imports and from Bombay High will be received at a location in the Gulf of Kutch and transported across over a distance of 1,115 km by pipeline The refinery is expected to be commissioned by April 1980.

Pipelines

Prior to 1964, a pipeline had been constructed to transport the crude from the Naharkatiya oil fields to Gauhati and Barauni refineries. Since then, various multi-product pipelines have been laid These are Gauhati-Siliguri, Koyali-Ahmedabad, Barauni-Kanpur and Haldia—Maurigram-Rajbandh pipelines. There is also a network of pipelines in Gujarat for transporting crude oil from the Gujarat oil fields to the Koyali refinery.

A 1,256 km pipeline is to be laid from Salaya in the Gulf of Kutch to Koyali and Mathura via Viramgam in Gujarat to supply crude obtained through imports and from Bombay High to the expanded Koyali refinery and Mathura refinery. The crude will be received at an off-shore terminal, which is the first of its kind to be set up in the country. The off-shore terminal and the Salaya-Koyali sector of the pipeline are expected to be completed by 1978. The completion of the Viramgam-Mathura sector will synchronise with the completion of Mathura refinery

Indian Oil Blending Ltd

The Indian Oil Blending Limited, a wholly-owned subsidiary of IOC, is engaged in blending lubricants and greases for the IOC.

Lubrizol India Ltd

To produce various chemical additives, a plant was set up in Bombay in 1968 by Lubrizol India Ltd , a joint venture of the Government of India and the Lubrizol Corporation of the USA During 1976, the production was 10,591 tonnes.

Engineering Consultancy

The Engineers India Ltd., New Delhi, was constituted in 1965 to provide engineering and consultancy services to government agencies and projects in the public and private sectors in the field of petroleum, petro-chemicals and fertilizers It also competes for jobs in the international market.

Marketing and Distribution

The Indian Oil Corporation (IOC) was set up in 1964 by amalgamating Indian Refineries Ltd and the Indian Oil Company Ltd IOC has

*Indian Oil Corporation*

two divisions, namely, Refineries and Piplines Division and Marketing Division. The Marketing Division obtains products from IOC's own refineries, MRL, CRL and through imports. The Corporation has developed a research and development centre at Faridabad, Haryana, at a cost of Rs 4.84 crores. It provides technical service to customers and is engaged in development of sophisticated lubricating oils.

In addition, HPCL and BRL, the two other public sector undertakings, market petroleum products obtained from its own refineries at Bombay.

Market participation of the Corporation was about 64.6 per cent of the total sales in 1976-77. The number of retail outlets, which was 3,628 on 31 March 1976 rose to 3,954 on 31 March 1977. IOC is also marketing cooking gas (LPG) for domestic use in 209 cities as on 31 March 1977.

For meeting the deficit of petroleum products in the country, IOC makes arrangements for imports. It also undertakes export of products. During 1976-77, the Corporation's exports amounted to about Rs 19.12 crores.

A scheme for the conversion of the existing retail outlets (Petrolpumps), particularly in the rural and semi-urban areas, into multipurpose commodity distribution centres, has been launched by the public sector oil companies. The object of the scheme is to provide at controlled prices, to the farmers and landless labourers in rural areas, agricultural inputs like fertilizers and pesticides, and articles of daily necessity under one roof. As on 31 March 1977, the IOC had about 265 such centres.

*Indo-Burma Petroleum Company Ltd.*

Apart from marketing petroleum products obtained from IOC, this public sector company has three Divisions, *viz.* Oil Division, Engineering Division and Chemicals Division. In April 1976, IBP entered into an agreement with M/s Ireco Chemicals of USA for the manufacture of industrial explosives in the country.

*Bitumen Marketing Corporation*

For marketing bitumen produced in the country, Bitumen Marketing Corporation was set up in the public sector in 1974. The Corporation is expected to start functioning shortly.

# 18 INDUSTRY

A century of industrial development pales into insignificance when compared with the rapid industrial growth witnessed during over two and a half decades of planned development. Industrial production increased by about 19 per cent during 1975 as compared to 1970. While almost all groups of industries contributed to this increase, the growth has been particularly marked in the newer and more complex industries, such as, petroleum products, aluminium manufacture, metal products, electrical and non-electrical machinery.

Side by side, the different Five Year Plan periods saw the expansion and diversification of the industrial structure with the establishment of new units in the existing fields as well as the setting up of new enterprises. As a result, the number of industrial units has increased significantly. In 1951, there were only two major units producing iron and steel There are now six major steel plants with a capacity of about 80 lakh tonnes, produced over 70 lakh tonnes of saleable steel during 1976-77, registering an impressive rise of 19 per cent over the previous year. The steel produced by these plants has provided the basis for achieving self-sufficiency in making a number of engineering goods, from a pin to giant machinery. In the field of new industries, the dyestuff industry, which practically did not exist in 1951, has progressed to such an extent that the import of most of the dyes has been stopped The drug industry is also developing fast The textile industry is no longer confined to the cotton and jute textiles Today, there are quite a few units producing different types of synthetic fibres. The machine building industry, too, has made rapid strides The engineering industry can supply virtually the entire requirement of power generating equipment, equipment for railways, road transport and communications. Self-sufficiency has been reached with regard to sugar and cement machinery, power boilers, material handling equipment and a large number of consumer durables

An important feature of industrial growth in the country after Independence has been the rapid expansion of the public sector In 1951, there were only five non-departmental public undertakings with an investment of Rs 29 crores. On 31 March 1976, they numbered 129 with an investment of Rs 8,973 crores These enterprises produce diverse products, such as steel, coal, aluminium, copper, heavy and light engineering products, fertilizers, basic chemicals, drugs, minerals, petroleum products, locomotives, aircraft and ships

Annual Survey

The provisional summary results of the Annual Survey of Industries for 1974-75 revealed that there were 16,586 registered factories in that year as compared to 15,451 in 1973-74, employing 50 or more workers with the aid of power and 100 or more workers without the aid of power There was thus an increase of about 7.3 per cent in the total number of factories During this one year total fixed capital increased from Rs 10,815 crores to Rs 11,332 crores, a rise of 11 3 per cent. Similarly, productive capital (which is the sum of fixed capital and working capital), input and gross output rose from Rs 14,326 crores to Rs 16,727; Rs 11,183 crores to Rs 15 499 crores and Rs 15,993 to Rs 21,763 crores respectively during this period.

It represented an increase of 16.8 per cent in productive capital, 36.6 per cent in input and 36.1 per cent in gross output. These factories employed 49.26 lakh persons with the annual wage bill of Rs 2,788 crores in 1974-75 as compared to about 47.44 lakh persons with the annual wage bill of Rs 2,263 crores in 1973-74. This showed an increase of 3.8 per cent in employment and 23.2 per cent in the wage bill

The contribution to national income measured in terms of value added by manufacture was higher by 34 per cent in 1974-75 as compared to 1973-74. In absolute terms the increase was from Rs 4,099 crores to Rs 5,492 crores between 1973-74 and 1974-75.

Performance in terms of gross industrial output in 1974-75, Maharashtra continued to remain at the top Next came West Bengal, followed by Gujarat and Tamil Nadu There are nine states, each of which accounted for at least 4 per cent (Rs 225 crores) of the total value added by manufacture. The values of output of nine states are: Maharashtra Rs 5,754 crores (26.4 per cent); West Bengal Rs 2,496 crores (11 4 per cent); Gujarat Rs 2,215 crores (10 2 per cent); Tamil Nadu Rs 2,069 crores (9.5 per cent); Uttar Pradesh Rs 1,499 crores (6.9 per cent); Bihar Rs 1,432 crores (6 6 per cent); Andhra Pradesh Rs 1,083 crores (5 per cent), Madhya Pradesh Rs 952 crores (4 4 per cent) and Karnataka Rs 875 crores (4 per cent). Nine states together accounted for 78 8 per cent of reporting factories, 76 7 per cent of fixed capital, 83 1 per cent of total employment, 84 4 per cent of total output and 85 5 per cent of total value added

Fifteen major industry groups taken together accounted for 88.4 per cent of the reporting factories, 97 8 per cent of Productive capital, 94.5 per cent of total employment, 96 4 per cent of output and 96 1 per cent of value added by manufacture. Among the industry groups "23" cotton textiles was, as in earlier years, the largest contributor to the national aggregates of employment, wage bill and value added by manufacturing The share of this group alone in the value added was 14.7 per cent, productive capital 5 8 per cent, employment 19.2 per cent, reporting factories 12 5 per cent and in the total output 13.4 per cent.

## POLICY AND PROGRESS

**INDUSTRIAL POLICY**

Independent India's industrial policy was first announced in 1948 This envisaged a mixed economy with an overall responsibility of the government for planned development of industries and their regulation in the national interest While it reiterated the right of the State to acquire an industrial undertaking in public interest, it reserved an appropriate sphere for private enterprise The policy was revised in 1956 following Parliament's acceptance in 1954 of a socialist pattern of society as the national objective Under the revised policy, industries specified in Schedule A (enumerated below) are the exclusive responsibility of the State, while industries in Schedule B (also enumerated below) are to be progressively State-owned, but private enterprise is expected to supplement the efforts of the State in these fields Future development of industries falling outside the two Schedules will, in general, be left to private enterprise Notwithstanding this demarcation, it will always be open to the State to undertake any type of industrial production

*Schedule A Industries* : Arms and ammunition and allied items of

defence equipment; atomic energy, iron and steel, heavy castings and forgings of iron and steel; heavy plant and machinery required for iron and steel production, for mining, for machine tool manufacture and for such other basic industries as may be specified by the central government, heavy electrical plant including large hydraulic and steam turbines, coal and lignite, mineral oils, mining of iron ore, manganese ore, chrome ore, gypsum, sulphur, gold and diamonds; mining and processing of copper, lead, zinc, molybdenum and wolfram; minerals specified in the Schedule to the Atomic Energy (Control of Production and Use) Order 1953; aircraft; air transport: railway transport; shipbuilding; telephones and telephone cables: telegraph and wireless apparatus (excluding radio receiving sets), generation and distribution of electricity.

*Schedule B Industries* : All other minerals except 'minor minerals' as defined in Section 3 of the Minerals Concession Rules, 1949; aluminium and other non-ferrous metals not included in Schedule A; machine tools; ferro-alloys and tool steels; basic and intermediate products required by chemical industries, such as, the manufacture of drugs, dyestuffs and plastics: antibiotics and other essential drugs, fertilizers; synthetic rubber, carbonisation of coal; chemical pulp; road transport and sea transport.

**Regulation of Industry**

In line with the policy first announced in 1948. the Constitution was amended and the Industries (Development and Regulation) Act, 1951 was enacted Under this. industries listed in the first Schedule to the Act are required to be licensed by the government. The Act also authorises the government to examine the working of any such industrial undertaking and to issue directions which it considers necessary. If the undertaking continues to be mismanaged, the government is empowered to take over its management or control The Act empowers the government to secure equitable distribution and fair prices of any article produced by the scheduled industries

**Industrial Licensing**

An important objective of the industrial policy is to prevent the emergence of private monopolies and the concentration of economic power in the hands of a small number of individuals The problem was studied by the Mahalanobis Committee on Distribution of Income and Levels of Living (1960), the Monopolies Enquiry Commission (1964), and the Industrial Licensing Policy Inquiry Committee (ILPIC) (1967). The Administrative Reforms Commission and the Planning Commission also made various recommendations As a result, the Monopolies and Restrictive Trade Practices (MRTP) Act was passed in 1969 and under the Act the Monopoly and Restrictive Trade Practices Commission was appointed in 1970. The Industrial Licensing Policy was modified in 1970 and again in 1973.

The latest modifications reaffirmed that the Industrial Policy Resolution of 1956 will continue to govern government's policies in the industrial sphere All industries of basic and strategic importance, or in the nature of public utility services will continue to be in the public sector. Industries which are essential and require investment on a scale, which only the State in the present circumstances could provide, will also be in the public sector Some other salient features of the new changes are :

A large industrial house for licensing purposes will mean a house having assets, along with assets of inter-connected undertakings (as

defined in the MRTP Act, 1969), of not less than Rs 20 crores as against assets exceeding Rs 35 crores provided by the ILPIC.

The list of industries, which are open for larger industrial houses and foreign concerns and subsidiaries and branches of foreign companies along with other applicants, has been consolidated. They cannot, however, participate in the production of any item reserved for the public sector as mentioned in Schedule A or the small-scale sector The consolidated list covers 19 groups, *viz*, 1. metallurgical industries : (i) ferro-alloys, (ii) steel castings and forgings, (iii) special steels and (iv) non-ferrous metals and their alloys; 2. boilers and steam generating plants; 3, prime movers (other than electrical generators) : (i) industrial turbines, and (ii) internal combuston engines; 4. electrical equipment : (i) equipment for transmission and distribution of electricity, (ii) electrical motors, (iii) electrical furnaces, (iv) X-ray equipment, and (v) electronic components and equipment, 5. transportation : (i) mechanised sailing vessels up to 1,000 dwt, (ii) ship ancillaries, and (iii) commercial vehicles, 6. industrial machinery; 7. machine tools : 8 agricultural machinery, tractors and power tillers; 9. earthmoving machinery; 10. industrial instruments, indicating, recording and regulating devices for pressure, temperature, rate of flow, weights levels and the like; 11. scientific instruments; 12. nitrogenous and phosphatic fertilizers falling under inorganic fertilizers under '18 Fertilizers' in the First Schedule to the I D & R Act, 1951; 13. chemicals (other than fertilizers) : (i) inorganic heavy chemicals, (ii) organic heavy chemicals, (iii) fine chemicals, including photographic chemicals, (iv) synthetic resins and plastics, (v) synthetic rubbers, (vi) man-made fibres, (vii) industrial explosives, (viii) insecticides, fungicides, weedicides and the like, (ix) synthetic detergents and (x) miscellaneous chemicals (for industrial use only); 14. drugs and pharmaceuticals; 15. paper and pulp including paper products; 16 automobile tyres and tubes; 17. plate glass; 18. ceramic. (i) refractories, and (ii) furnace lining bricks—acidic, basic and neutral; and 19. cement products : (i) portland cement and (ii) asbestos cement

The larger industrial houses will ordinarily be excluded from the industries not included in the 19 groups except where production is predominantly for exports The minimum export obligation in such cases will be at least 60 per cent of the additional production (75 per cent in the case of industries normally reserved for small-scale units) The investment of foreign concerns will continue to be subjected to the 'guidelines on the dilution of foreign equity' and will be examined with special reference to technological aspects, export possibilities and the overall effect on the balance of payments.

Competent small and medium entrepreneurs will be preferred *vis-a-vis* the larger industrial houses and foreign concerns in the setting up of new capacity. Licensing policy will seek to promote production of ancillaries in the medium or small-scale sector. Co-operatives and small and medium entrepreneurs will be encourgaged to participate in the production of mass consumption goods Other investors will be allowed to participate only if there are special factors, such as, sizeable economies of scale resulting in reduced prices, technological improvements, large investment requirements, substantial export possibilities or as part of modernisation. The co-operative sector will also get preference in the licensing of industries which process agricultural

raw materials, such as, sugarcane, jute, cotton or agricultural inputs, such as, fertilizers.

The policy of reservation for the small-scale sector (involving investment in machinery and equipment up to Rs 10 lakhs) and ancillary industries (involving investment in plant and equipment up to Rs 15 lakhs) will be continued The government will extend the area of reservation for this sector keeping in view its performance and potentialities.

The exemption limit for licensing purposes, which now applies to substantial expansions and new undertakings up to Rs 1 crore by way of fixed assets in land, buildings and machinery, will be continued. This exemption will not apply to existing licensed or registered undertakings having fixed assets exceeding Rs 5 crores, larger industrial houses, dominant undertakings and to foreign companies including their branches and subsidiaries.

Each proposal for establishing a joint sector project will be judged and decided on its merits in the light of government's social and economic objectives The undertakings covered by the MRTP Act will not be allowed to use the device of joint sector projects for entry in industries from which they are otherwise precluded The government will also ensure for themselves an effective role in guiding policies, management and operation of joint sector companies

**Liberalisation following Declaration of Emergency**

In pursuance of the liberalised licensing policy, the government decided to exempt from the normal industrial licensing procedure medium entrepreneurs to enable them to set up industrial capacities based on indigenous equipment and local raw materials and also to utilise to a fuller extent the existing installed capacities Accordingly, 24 medium industries were exempted from the licensing provisions for setting up a new undertaking, substantial expansion of the existing capacity and manufacture of new articles.

Another 29 medium sector industries were allowed fuller utilisation of the installed capacities. This was done with the twin objectives of containing inflation and increasing production in key and important industries.

To liberalise investment procedure, powers have been delegated to administrative ministries to dispose of certain types of applications including those for diversification, carry-on-business licences and extension of validity period of letters of intent or industrial licences.

Fifteen selected engineering industries, particularly export oriented ones, have been allowed to grow at the rate of 5 per cent per annum or up to a ceiling of 25 per cent in a plan period in one or more steps, over their licensed capacity.

With a view to utilising full installed capacity, diversification has been allowed in industrial machinery, machine tools, electrical equipment, steel castings, steel forgings, steel pipes, passenger cars and power driven two-wheeler industry within the overall licensed capacity of a particular industrial undertaking

A technical development cell has been set up in the Ministry of Industry to promote full utilisation of capacity to enhance export development efforts A technical development fund has also been created to cover the foreign exchange needs for import of equipment having an impact on quality and quantity output, technical know-how, foreign consultancy services and import of drawing and designs.

To encourage commercial exploitation of technology developed

by national laboratories, industrial undertakings, other than those falling within the purview of the Monopolies and Restrictive Trade Practices Act and Foreign Exchange Regulation Act, can set up capacities based on technology developed by any of the laboratories established by the CSIR and laboratories approved by the Department of Science and Technology without obtaining an industrial licence.

Non-residents of Indian origin have been allowed facilities to import plant and machinery for the establishment of industrial projects in India from their own savings in foreign exchange. These facilities have been liberalised so as to attract remittance and investment in industries in the priority and the export oriented sectors.

STANDARDISATION

National standards for commodities, materials and processes are laid down by the Indian Standards Institution (ISI) which was set up in New Delhi in 1947 It also promotes standardisation and quality control in industrial technology and imparts training in standardisation techniques to Indian and foreign company executives and technical personnel. The number of standards in force as on 31 August 1977 was 9,224

The Institution also operates the ISI Certification Mark Scheme under which licences are issued to manufacturers for applying the Certification Mark on their products as a third party guarantee about their quality The number of licences issued for the use of Certification Mark on Products as on 31 August 1977 was 4,135.

The Institution represents India on the International Organisation for Standardisation and Internation Electrotechnical Commission.

INDUSTRIAL FINANCE

Institutional finance for industries is provided by several term-lending institutions both at the all-India level as well as the state level. The institutions which supply industrial finance are described below :

IFCI

The Industrial Finance Corporation of India (IFCI), which was established under an Act of Parliament in 1948 and is now a subsidiary of the Industrial Development Bank of India, provides long-term loan assistance to industrial concerns, both in the public and private sectors. The Corporation also provides training in modern management techniques to its clients From its inception and up to 31 March 1977, the total net financial assistance sanctioned and disbursed by IFCI amounted to Rs 620.07 crores and Rs 468 49 crores respectively.

SFCs

Eighteen State Financial Corporations including the Tamil Nadu Industrial and Investment Corporation, supply industrial finance to medium and small-scale sectors. The total loans sanctione by them during 1976-77 amounted to Rs 168.10 crores as against Rs 162 30 crores during 1975-76. The outstanding loans on 31 March 1977 totalled Rs 445.30 crores, i e, 22.3 per cent higher than a year ago.

The International Development Association (IDA) has sanctioned a credit of $ 4 0 crores to India for meeting the foreign exchange requirements of small and medium projects financed by SFCs and refinanced by the Industrial Development Bank of India which will enable SFCs to assist medium and small-scale units for import of plant and machinery The amount was committed fully by March 1976.

IDBI

The Industrial Development Bank of India (IDBI) was set up in 1964 to co-ordinate the activities of other financial institutions (in-

cluding banks), supplement their resources to plan and promote industries of key significance to the industrial structure and to adopt and enforce a system of priorities in promoting future industrial growth. In order to enlarge the role of the IDBI as the apex financial institution and to achieve more effective co-ordination among all financial institutions in the country, IDBI was delinked from the Reserve Bank of India and made an autonomous Corporation owned by the Government of India with effect from 16 February 1976.

The main thrust of the Bank in the future, would be that of an innovator imparting new directions in the sphere of industrial finance. The principal functions and operations of the Bank have been entrusted to two separate Wings—the Domestic Finance Wing and the International Finance Wing. The former handles all aspects of domestic project assistance, including selection and scrutiny, financing and followup and the latter offers improved and wider financial and advisory services to engineering exporters and functions in fact, as an Export Bank. This Wing also handles foreign lines of credit such as those from the International Development Association made available to the IDBI for financing industrial development.

The emphasis is on the programmes that result in assistance to small and new entrepreneurs and to enterprises located in relatively under-developed regions; projects which use indigenous technology and have greater employment potential; projects which earn or save foreign exchange; and all other projects accorded priority in our national programmes for economic development. In order to expedite assistance to these priority areas, the IDBI has effected substantial decentralisation of the Bank's operations. Regional Offices at Calcutta and Madras have been upgraded; a new Western Regional Office at Ahmedabad has been opened. Branch offices in various States are also being upgraded.

The Bank had sanctioned up to 30 June 1977 financial assistance (excluding guarantees) totalling Rs 2,448 crores, of which Rs 1,622.30 crores had been disbursed.

ICICI

The Industrial Credit and Investment Corporation of India (ICICI) was set up in 1955. During 1976, it provided financial assistance of Rs 106.14 crores (including foreign currencies) as against Rs 86.15 crores in 1975. The amount disbursed in 1976 was Rs 66 44 crores as against Rs 55.38 crores in the preceding year. From its inception and up to 31 December 1976, the total amount sanctioned (net) and disbursed was Rs 782 64 crores and Rs 563 24 crores respectively.

IRCI

The Industrial Reconstruction Corporation of India (IRCI), which was set up in 1971, is mainly concerned with the revival and revitalisation of industrial units which have closed down or are facing closure but show promise of viability by reconstruction of share capital, strengthening of management, provision of finance on soft terms, improvement in technology and labour relations. Up to 31 March 1977, IRCI had sanctioned loan assistance of Rs 47.02 crores.

NIDC

The National Industrial Development Corporation (NIDC) was set up in 1954 for the rehabilitation and modernisation of cotton textile and jute industries and for the expansion of machine tool units. It is providing engineering consultancy services both at home and abroad. The Corporation's consultancy services are being increasingly utilised

by developing countries like Iran, Kenya, Libya, Malaysia, Nepal, Tanzania, the Gulf States and also by a developed country, Italy. The United Nations Industrial Development Organisation and Some private parties in UK have also given assignments to NIDC. Its foreign exchange earnings totalled Rs 34 lakhs during 1976-77.

UTI

The Unit Trust of India (UTI) was established in 1964 as a public sector investment institution for mobilising the savings of the community and channelising them into productive corporate investments so as to provide for the growth and diversification of the economy.

To achieve this UTI sells 'Units' of the denomination of Rs 10 to public for investment in 'Units' to provide an opportunity to investors, particularly to those belonging to small and medium income groups indirectly to participate in the ownership of shares and debentures of joint stock companies. For this purpose UTI has formulated three schemes for selling 'Units', namely Unit Scheme 1964, Unit Scheme 1971 and Unit Scheme 1976. In order to cater to specific investment needs of different types of investors, UTI framed specific savings plans linked to the Unit Schemes, *viz.*, Reinvestment Plan 1966, Children's Gift plan 1970 and Unit-Linked Insurance Plan 1971. The net sales of Units under the aforesaid three schemes and the plans as on 30 June 1976 amounted to about Rs 166 crores, the number of unit holders being over 6 lakhs. The divided distribution for Unit Scheme 1964 which was 6 1 per cent in 1964-65 was gradually raised to 8.75 per cent by 1974-75.

FOREIGN CAPITAL

To supplement the capital resources and know-how for rapid industrial development, the Government of India allows foreign assistance in desirable cases The policy in regard to foreign capital is governed by the Industrial Policy Resolution of 1948 and the Prime Minister statement in the Constituent Assembly in 1949. Under this, the government's policy towards foreign investment is highly selective and aims at filling technological gaps and expanding exports. Foreign capital is not permitted in the fields of banking, commerce, finance, plantations, trading, consumer and high profit yielding industries.

Under section 29 of the Foreign Exchange Regulation Act 1973 companies incorporated abroad and Indian companies having more than 40 per cent non-resident interest are required to obtain fresh permission of the Reserve Bank of India to carry on their existing business activities in India

According to the guidelines issued by the government, branches of foreign companies would be required to convert into Indian com panies with foreign holdings ranging from 40 per cent, 51 per cent and 74 per cent The Indian companies with more than 40 per cent non-resident interest would also be required to reduce the foreign holdings to 74 per cent or 51 per cent or 40 per cent depending upon the nature of business activities.

DEVELOPMENT OF INDUSTRIES

The history of organised industry in India may be traced to 1854 when the real beginnings of the cotton mill industry were made in Bombay with predominantly Indian capital and enterprise The foundations of jute industry were laid near Calcutta in 1855, mostly with foreign capital and enterprise. Coal-mining also progressed about this time. These were the only major industries which had developed substantially before the First World War. During and after World

Wars I and II, a somewhat more liberal policy was adopted by the authorities, such as, a discriminating protection policy, which gave impetus to industrial development. Several industries rapidly expanded and a number of new industries came up, such as, steel, sugar, cement, glass, industrial chemicals, soap, vanaspati and some branches of engineering But their production was neither adequate in quantity for meeting even the low level of internal demand nor diversified in character.

*Progress First and Second Plans*

During the First and Second Five Year Plans (1951-52 to 1960-61). the growth and diversification of industry were remarkable, particularly in the Second Plan. Three new steel plants, each of 10 lakh ingot tonnes capacity, were set up in the public sector and the capacity of the two existing steel works in the private sector was doubled. Foundations were laid of heavy electrical and heavy machine tools industries and heavy machine building and other branches of heavy engineering industries The production of machinery for cement and paper industries was started for the first time. In chemical industries the advance was on a wide front, leading not only to large units and greatly increased output of basic chemicals, such as, nitrogenous fertilizers, caustic soda, soda ash and sulphuric acid, but also in the manufacture of a number of new products like urea, ammonium phosphate. penicillin, synthetic fibres, industrial explosives, polyethylene and dyestuffs. The output of many other industries like bicycles, sewing machines, telephone and electrical goods, increased substantially. New skills were learnt by the workers and a large and growing class of industrial managers came into being. Organised industrial production practically doubled in these ten years; the index of industrial production rose from 100 in 1950-51 to 194 in 1960-61. New industrial townships and factories sprang up in the environs of the main cities of the country.

At the same time there were some large shortfalls. The combined output of the new steel plants was only 6 lakh tonnes in 1960-61 as against the target of 20 lakh tonnes The expansion of the government-owned Sindri Fertilizer Factory and the private sector ammonium chloride project at Varanasi were completed 12 to 18 months after the scheduled dates. The three fertilizer plants in the public sector at Nangal, Neyveli and Rourkela and the Heavy Electricals Project at Bhopal were delayed, mainly due to foreign exchange difficulties The heavy machinery, the mining machinery and the foundry forge projects, which should have been far advanced, began to yield some output only at the end of the Third Plan.

Targets of capacity and production in most cases were,however. fulfilled, and in some cases, for example, power-driven pumps, diesel engines, electric motors, electric fans, radio receivers and sugar, the targets were exceeded

Dispersal of industry was effected by giving preference in location of public sector projects of relatively backward areas whenever possible Similarly, in the licensing of private sector projects the claims of under-developed regions were kept in view

*Third Plan and Annual Plans*

Industrial progress was markedly uneven during the eight years which comprised the Third Plan (1961-66) and the subsequent Annual Plans (1966-69). In the first four years, conditions were relatively favourable for industrial investment and growth and the progress

achieved was significant. Thereafter, for nearly three years the economy was subjected to considerable stress and strain and the growth rate in industrial production declined, first slowly and then steeply, till it reached virtual stagnation. But in the last year of this period, 1968-69, there were distinct signs of recovery.

These vicissitudes may be illustrated with reference to the index of industrial production. The increase in industrial output (1960 as base) was 8|2 per cent in 1961-62, 9.6 per cent in 1962-63, 9.2 per cent in 1963-64 and 8.8 per cent in 1964-65. Thereafter, there was a sharp deterioration in the rate of growth of output. It fell to 5.3 per cent in 1965-66, 0 2 per cent in 1966-67 and 0.5 per cent in 1967-68 The decline in these years was mainly due to low rates of growth in textiles and food industries, on the one hand, and metals and machinery industries on the other. Industrial production, however, showed a sharp recovery during 1968-69 with a rise of 6.2 per cent.

The decline in industrial growth after 1964-65 was attributable to several factors, of which the most important were the series of dislocations caused by the hostilities in 1965 and two successive droughts in 1965-66 and 1966-67. Many industries were severely affected by the shortage of raw materials and components arising from the pause in external aid in 1965.

Among industries in which Third Plan production targets were fully or nearly realised by 1965-66, were aluminium, automobiles, electric transformers, cotton textile machinery, machine tools, sugar, jute textiles, power-driven pumps, diesel engines and petroleum products On the other hand, in some of the important industries like steel and fertilizers, there was a considerable shortfall in production In subsequent years, there was a step-up in production in certain industries such as fertilizers, heavy chemicals, cement and petroleum products. All the same, the Third Plan targets for steel and fertilizers were not realised even by 1968-69, the output of finished steel being 47 lakh tonnes in 1968-69 against the Third Plan target of 68 lakh tonnes and of nitrogenous fertilizers being 5,41,000 tonnes against an expected 8,00,000 tonnes.

In spite of this uneven performance, significant achievements contributing towards the realisation of diversified industrial structure were made during this period. Substantial capacity was created in many new lines. A fairly sound base for future growth was laid. Several of the large projects launched at the commencement of the Third Plan were completed and brought into production In particular, in the field of heavy engineering and machine-building industries, the commencement of production of the different units in the Heavy Engineering Corporation, Mining and Allied Machinery Corporation and of heavy electrical projects made it possible, largely through indigenous efforts, the expansion of further capacity in vital sectors like iron and steel, mining and power generation In the field of rail and road transport and communications, virtual self-sufficiency for the supply of equipment and rolling stock was achieved Machinery manufacturing capacity for a variety of traditional industries like textiles, sugar and cement was developed and design and engineering capabilities were expanded Process technology was either acquired or developed to enable the planning, designing and construction of industrial projects with maximum indigenous efforts in fields like fertilizers, rayon and dissolving pulp There was an appreciable increase in the production

capacity of steel and non-ferrous metals Progress was made in the expansion of capacity in petroleum, fertilizer and petro-chemical industries.

*Fourth Plan*

In the Fourth Plan, the performance of the industrial sector fell short of expectations both in terms of production and investment. Industrial production, which was expected to achieve an annual growth rate of 8 to 10 per cent during the Plan period on the basis of the proposed investment—Rs 3,050 crores in the public sector and Rs 2,250 crores in the privae sector—was : 7.3 per cent (1969-70); 3 1 per cent (1970-71); 3.3 per cent (1971-72), and 5.3 per cent (1972-73). In 1973-74 industrial production was almost static The investment on industrial development in the public sector was estimated to be about Rs 2.700 crores as against the provision of Rs 3,050 crores While the pace of investment in some of the sectors like iron ore, petroleum and petro-chemicals was generally satisfactory, this was not so in respect of other sectors like iron and steel, non-ferrous metals, fertilizers and coal In fact, the shortfall in overall investment was much larger, if account was taken of the escalation in project costs

A number of factors were responsible for the unsatisfactory growth in industrial production While in some of the critical industries steel and fertilizers, production remained substantially below the installed capacity on account of operational problems in different units, other agro-based industries like sugar and textiles showed an erratic trend The inadequate pace of investment resulted in a reduced demand for industrial machinery, adversely affecting the level of output of the capital goods industries Production in other engineering industries was also hit by the shortage of steel and non-ferrous metals.

On the positive side, there was a substantial production increase in several industries like alloys and special steels, aluminium, automobile tyres, petroleum refinery products electronics, machine tools, tractors and heavy electrical equipment The production turnover in the public sector undertakings also showed an encouraging rise towards the closing years of the Plan Apart from this, the industrial base was further expanded and a greater degree of sophistication and self-reliance achieved Several of the projects, such as, steel, non-ferrous metals, fertilizers, tractors, plastics and rubber taken up during the Fourth Plan are expected to add significantly to capacity and production during the Fifth Plan

*Fifth Plan*

The Fifth Plan lays emphasis on rapid growth of core sector industries and increase in the production of export-oriented goods and articles of mass consumption The average rate of growth of industrial sector is estimated at seven per cent per annum in the revised plan The sharp increase in the prices of food, fertilizers and oil seriously up-set the assumptions on which the draft Fifth plan had been framed These new developments also lent urgency to a time-bound programme of action in order to achive a measure of self-reliance in food and energy The successive Annual Plans had to be formulated on the basis of these considerations

Of the revised outlay of Rs 69,303 crores, the share of public sector is Rs 42,303 which includes Rs 3,000 crores as investment on inventories The remaining public sector outlay includes fresh investment of Rs 36,703 crores and Rs 2,600 crores as current outlay The private sector outlay has been raised from Rs 1,600 crores in the draft

plan to Rs 2,700 in the revised plan. The revised plan investment estimates are based on 1974-75 prices while the draft plan estimates were based on 1972-73 prices.

## PUBLIC SECTOR

Over the last two and a half decades, the public sector has emerged as a major factor in the country's economic growth. The public sector in industry comprises : (i) public utilities like the railways, road transport services, ports, posts and telegraphs, power and irrigation projects; (ii) departmental undertakings of the central and state governments, such as, the Chittaranjan Locomotive Works, the Integral Coach Factory at Perambur and various defence production establishments; and (iii) number of other industrial undertakings which derive their finances almost wholly from the central government in the form of equity capital and loans While (i) and (ii) have been dealt with at length in other chapters of this book and details of the working of (iii) are given later in this chapter, some salient features of this category are given below :

On 31 March 1976, there were 140 central government public undertakings Of these, 121 were enterprises producing and selling goods and enterprises rendering services and eight were under construction The number of such units and the expansion of investment in them since the commencement of the First Five Year Plan is shown in table 18.1.

TABLE 18 1 EXPANSION OF INVESTMENT IN PUBLIC SECTOR

| Period | Number of enterprises | Investment (Rs crores) | Average annual growth rate (per cent) |
|---|---|---|---|
| At the commencement of | | | |
| First Plan | 5 | 29 | — |
| Second Plan | 21 | 81 | 36 |
| Third Plan | 48 | 953 | 233 |
| At the end of the Third Plan (as on 31 March 1966) | 74 | 2,415 | 31 |
| As on 31 March | | | |
| 1970 | 91 | 4,301 | 10 |
| 1972 | 101 | 5,052 | 8 |
| 1973 | 113 | 5,571 | 10 |
| 1974 (End of the Fourth Plan) | 122 | 6,237 | 12 |
| 1975 | 129 | 7,261 | 16 |
| 1976 | 129 | 8,973 | 23 6 |

**Investment**

Investment (equity and loan) grew from Rs 4,301 crores in 1969-70 to Rs 8,973 crores in 1975-76 Sector-wise distribution of investment is shown in table 18.2.

**Turnover**

Total turnover of the undertakings amounted to Rs 11,688 crores during 1975-76 as against Rs 10,217 crores in the previous year, registering an increase of 14.4 per cent. The pattern of turnover in the enterprises during 1974-75 and 1975-76 is given in table 18.3.

**Exports**

The value of exports by public sector undertakings during 1975-76 was Rs 221 crores as against Rs 144 crores in the preceding year. Foreign exchange earned by other than through exports (ship repairs,

freight earnings), amounted to Rs 310 crores in 1975-76 as against Rs 228 crores in 1974-75 The value of exports canalised through trading concerns rose from Rs 779 crores in 1974-75 to Rs 1,110 crores during 1975-76. Some of the products exported were industrial boilers, electronic instruments, teleprinters, telephone exchange equipment, machine tools, pig iron, aluminium, petroleum products, rail coaches etc.

Profit

The gross profit earned by the enterprises after providing for depreciation, but before interest and tax earned during 1975-76 worked out to Rs 668 crores. Net profit after payment of interest and tax was Rs 129 crores. Eighty-seven enterprises contributed profits totalling

TABLE 18 2
SECTOR-WISE DISTRIBUTION OF INVESTMENT IN PUBLIC SECTOR UNDERTAKINGS

(Rs crores)

| Category | At the end of 1974-75 | | At the end of 1975-76 | |
|---|---|---|---|---|
| | Investment | Percentage of total Investment | Investment | Percentage of total Investment |
| *A Enterprises producing and selling goods* | | | | |
| Steel | 2,217 69 | 30 5 | 2,570 40 | 28·6 |
| Minerals and metals other than coal | 1,024 70 | 14·1 | 461 59 | 5 1 |
| Minerals and metals-Coal | — | — | 920 86 | 10 3 |
| Petroleum | 434·57 | 6 0 | 466 20 | 5 2 |
| Chemicals and pharmaceuticals | 1,065 91 | 14 7 | 1,470 68 | 16 4 |
| Heavy engineering | 692·37 | 9 5 | 776·22 | 8·7 |
| Medium and light engineerings | 168 14 | 2 3 | 193 67 | 2·1 |
| Transportation equipment | 270·22 | 3·7 | 302 74 | 3 4 |
| Consumer goods | 82 91 | 1·1 | 108 19 | 1·2 |
| Agro-based enterprises | 9 08 | 0 1 | 10 41 | 0 1 |
| *B. Service enterprises* | | | | |
| Trading and marketing services | 316 44 | 4·4 | 467 61 | 5 2 |
| Transportation services | 639 63 | 8 8 | 860·73 | 9 6 |
| Contracts and construction services | 22 57 | 0 3 | 29 11 | 0 3 |
| Industrial development and technical consultancy services | 4 12 | 0 1 | 5 29 | 0 1 |
| Development of small industries | 36 75 | 0 6 | 42 63 | 0 5 |
| Tourist services | 18 26 | 0 3 | 20 18 | 0 2 |
| Financial services | 169 92 | 2 3 | 266 04 | 3 0 |
| Rehabilitation of sick industries | 87 37 | 1 2 | — | — |
| TOTAL (A+B) | 7,260 65 | 100 0 | 8,972 55 | 100 0 |

TABLE 18.3
TURNOVER OF THE ENTERPRISES

| Category | 1974-75 | 1975-76 | Percentage increase in 1975-76 over 1974-75 |
|---|---|---|---|
| *A. Enterprises producing and selling goods* | | | |
| Steel | 1,058 | 906 | (—)14 |
| Minerals and metals other than coal | 519 | 176 | 37 |
| Minerals and metals-Coal | — | 535 | |
| Petroleum | 2,943 | 3,683 | 25 |
| Chemicals and pharmaceuticals | 410 | 474 | 15 |
| Heavy engineering | 405 | 567 | 40 |
| Medium and light engineering | 247 | 347 | 40 |
| Transportation equipments | 261 | 310 | 19 |
| Consumer goods | 47 | 64 | 36 |
| Agro-based enterprises | 20 | 27 | 35 |
| *B. Service enterprises* | | | |
| Trading and marketing services | 3,681 | 3,841 | 4 |
| Transportation services | 453 | 556 | 23 |
| Contracts and construction services | 80 | 98 | 23 |
| Industrial development and technical consultancy service | 25 | 40 | 60 |
| Small industries development | 32 | 27 | (—)16 |
| Tourist services | 14 | 18 | 29 |
| Financial services | 12 | 19 | 58 |
| Rehabilitation of sick industries | 10 | — | (—)100 |
| TOTAL (A+B) | 10,217 | 11,688 | 14 |

Rs 255.13 crores and 34 enterprises, showed a loss of Rs 126.02 crores.

**Generation of Resources**

The sustained improvement in the performance of public sector undertakings enabled them to achieve a noteworthy growth rate in the generation of internal resources. The total resources generated including the contribution to the Public Exchequer in the form of dividends, interest on loans, income tax and excise duty during the period between 1969-70 and 1973-74 (Fourth Plan) amounted to Rs. 4,380 crores. During 1974-75 and 1975-76, the enterprises had generated resources of Rs. 1,710 crores and Rs. 1,894 crores respectively.

**Employment**

The number of persons in the employment of the enterprises was 15.05 lakhs in 1975-76 as against 14.08 lakhs in 1974-75 registering an increase of 7 per cent. Salaries and wages paid to the employees totalled Rs 1,351.8 crores and the average annual emoluments per employee were Rs 8,984 in 1975-76 as against Rs 7,401 in 1974-75.

**Employee's Welfare**

A number of enterprises have built townships and housing colonies for their employees. They also provide educational facilities for the children of the employees through their own schools. The expenditure on the maintenance of townships during 1975-76 was Rs 32.53 crores and on social overheads like provision of educational and medical facilities Rs 48.24 crores. The employees also enjoy benefits of provident fund, leave concession, medical and other amenities, retirement gratuity and bonus.

INDUSTRIAL PRODUCTION

Production in selected industries in different years since 1950-51 is given in table 18.4. The data for 1976-77 show that there had been significant increases in production of several basic industries.

The index of industrial production (base 1970=100) piled up momentum during 1976-77 showing a significant improvement as compared to previous year The growth rate increased from 6.1 per cent during 1975-76 to 10 4 per cent during 1976-77. The break up of the growth rate by major industry groups shows that the electricity generation attained 11 8 per cent growth rate during 1976-77. The manufacturing sector showed a growth rate of 10 8 per cent as compared to 4.5 per cent in the previous year In the manufacturing sector, 15 broad industry group out of 18 accounting for 63 per cent of the total weight, showed increases in production, important among them are . transport equipment 21 per cent; basic metal industries and chemical products 18 per cent each; manufacture of wood cork except furniture, and miscellaneous industries 16 per cent each and electrical machinery 11 per cent However, there was decline in the output of leather, textile and footwear.

The group-wise index numbers (1960=100) for 1951, 1961, 1966, 1971 and for the last two years (1970=100) are given in table 18 5;

## PRINCIPAL INDUSTRIES

COTTON TEXTILES

The origin of the cotton textile industry, the largest single industry in the country, dates back to 1818 when the first cotton mill was established at Fort Gloster near Calcutta The grant of protection and the Swadeshi movement enabled the industry to make rapid strides The number of mills increased to 389 in 1937 with 2,02,464 looms At the end of 1976 there were 703 mills (403 spinning and 290 composite) with an installed capacity of 198 4 lakh spindles and 2 08 lakh looms In 1947, cotton yarn production was 59 7 crores kg and piecegoods production 350.9 crore metres. The production of cotton yarn in 1976 was 100 5 crores kg and that of cotton cloth 392 1 crore metres The decentralised sector of handlooms and powerlooms produced another 406 crore metres of cotton cloth

Production of cotton yarn and cloth since 1950-51 is shown in table 18 4

JUTE

The jute industry is one of the oldest in the country. As a major foreign exchange earner it occupies an important place in the country's economy The first power-driven jute mill was established at Rishra near Calcutta in 1859 and thereafter the industry made rapid progress The partition of the country in 1947 deprived the industry of its vital raw material and reduced the number of mills to 106 Production in 1947-48 was only 16 5 lakh bales as against the pre-partition output of 65 70 lakh bales In 1973-74, production of raw jute reached a record level of 80 lakh bales but came down to 55 lakh bales in 1974-75 and 58 lakh bales in 1975-76 due to unfavourable weather conditions Production of jute goods during 1976-77 stood at 11 87 lakh tonnes The value of exports, however, during 1976-77 was Rs 200 8 crores as against Rs 248 crores during the previous year Table 18 4 shows the progress of the jute industry since 1950-51.

The Jute Corporation of India was set up in 1971 to manage the export, import and internal marketing of raw jute During 1976-77

TABLE 18 4

PROGRESS OF INDUSTRIAL PRODUCTION (SELECTED INDUSTRIES)

| Industry (unit) | | 1950-51 | 1960-61 | 1965-66 | 1970-71 | 1974-75 | 1975-76 | 1976-77[1] |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **I. *Mining*** | | | | | | | | |
| 1 | Coal (including lignite) (lakh tonnes) | 328 | 557 | 703 | 743 | 916 | 1,027 | 1,052 |
| 2 | Iron ore (lakh tonnes)[2] | 30 | 110 | 181 | 225 | 370 | 421 | 422 |
| **II. *Metallurgical Industries*** | | | | | | | | |
| 3. | Pig iron (lakh tonnes) | 16 9 | 43 1 | 70 9 | 69 9 | 75 8 | 85 5 | 100 1 |
| 4 | Steel (lakh tonnes) | 14 7 | 34 ·2 | 65 3 | 61 4 | 64 3 | 72 5 | 86 6 |
| 5. | Finished steel (lakh tonnes) | 10 4 | 23 ·9 | 45 1 | 44 8 | 49 1 | 59 1 | 68 8 |
| 6 | Steel castings ('000 tonnes) | — | 34 | 57 | 62 | 64 | 62 | 65 |
| 7 | Aluminium (virgin metal) ('000 tonnes) | 4 | 18 3 | 62 1 | 166 8 | 126 6 | 187 ·3 | 208 4 |
| 8. | Copper (virgin metal) ('000 tonnes) | 7 1 | 8 5 | 9 4 | 9 3 | 15 8 | 23 9 | 23 7 |
| **III. *Mechanical Engineering Industries*** | | | | | | | | |
| 9. | Machine tools (Rs crores) | 0 3 | 7 | 29 4 | 43 0 | 92 5 | 113 7 | 114 9 |
| 10 | Railway wagons ('000 no )[3] | 2 9 | 11 9 | 33 ·5 | 11 1 | 11 0 | 12 ·2 | 12 0 |
| 11 | Automobiles ('000 no.)[4] | 16 5 | 55 | 70 7 | 87 4 | 81 2 | 72 7 | 91 3 |
| | (i) Commercial vehicles ('000 no.)[5] | 8 ·6 | 28 ·4 | 35 ·3 | 41 ·2 | 40 2 | 43 ·8 | 46 4 |
| | (ii) Passenger cars etc. ('000 no ) | 7 9 | 26 6 | 35 4 | 46 2 | 41 0 | 28 9 | 44 9 |
| 12 | Motor cycles and scooters ('000 no ) | — | 19 4 | 40 7 | 97 0 | 149 0 | 182 3 | 228 9 |
| 13. | Power-driven pumps ('000 no ) | 35 | 109 | 244 | 259 | 282 | 274 | 300 |
| 14 | Diesel engines (stationary) ('000 no ) | 5 5 | 44 ·7 | 93 1 | 65 7 | 110 5 | 136 0 | 108 9 |
| 15 | Bicycles ('000 no ) | 99 | 1,071 | 1,574 | 2,042 | 2,384 | 2,332 | 2,637 |
| 16 | Sewing machines ('000 no ) | 33 | 303 | 430 | 235 | 327 | 269 | 384 |
| **IV. *Electrical Engineering Industries*** | | | | | | | | |
| 17 | Power Transformers (lakh kva) | 1 8 | 41 ·1 | 44 6 | 80 9 | 125 3 | 138 5 | 153 5 |
| 18 | Electric motors ('000 hp) | 99 | 728 | 1,753 | 2,721 | 3,644 | 3,509 | 3,662 |
| 19 | Electric fans (lakh no ) | 2 | 10 6 | 13 ·6 | 17 2 | 22 ·5 | 21 ·4 | 25 5 |
| 20 | Electric lamps (lakh no.) | 140 | 435 | 721 | 1,193 | 1,340 | 1,369 | 1,637 |
| 21 | Radio receivers ('000 no ) | 54 | 282 | 606 | 1,794 | 1,949 | 1,523 | 1,681 |
| 22. | Electric cables and wires: | | | | | | | |
| | (i) Aluminium conductors ('000 tonnes) | 1 ·7 | 23 6 | 40 6 | 64 ·2 | 28 6 | 59 ·1 | 86 4 |
| | (ii) Bare copper conductors ('000 tonnes) | 5 | 10 1 | 3 1 | 0 ·7 | 1 ·3 | 1 ·3 | 1.8 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **V. *Chemical , Allied Industries*** | | | | | | | |
| 23. Nitrogenous fertilizers ('000 tonnes of N) | 9 | 98 | 233 | 830 | 1,185 | 1,535 | 1,911 |
| 24 Phosphatic fertilizers ('000 tonnes of $P_2O_5$) | 9 | 52 | 111 | 229 | 327 | 327 | 463 |
| 25 Sulphuric acid ('000 tonnes) | 101 | 368 | 662 | 1,053 | 1,471 | 1,416 | 1,778 |
| 26 Soda ash ('000 tonnes) | 45 | 152 | 331 | 449 | 516 | 555 | 566 |
| 27 Caustic soda ('000 tonnes) | 12 | 101 | 218 | 371 | 426 | 469 | 505 |
| 28 Paper and paper board ('000 tonnes) | 116 | 350 | 558 | 755 | 836 | 836 | 882 |
| 29 Rubber tyres- | | | | | | | |
| (i) Automobile tyres (lakh no ) | 8 7 | 14·4 | 23 1 | 37 9 | 48 4 | 47 4 | 54 2 |
| (ii) Bicycle tyres (lakh no.) | 33 | 111 5 | 184·6 | 192 0 | 250·5 | 243 1 | 222 1 |
| 30 Cement (lakh tonnes) | 27·3 | 79·7 | 108·2 | 144 0 | 147 | 172 | 182 |
| 31 Refractories ('000 tonnes) | 237 | 567 | 695 | 683 | 753 | 728 | 790 |
| 32. Petroleum products refined (lakh tonnes) | 2 | 58 | 94 | 171 | 196 | 211 | 219 |
| **VI. *Textile Industries*** | | | | | | | |
| 33 Jute textiles ('000 tonnes) | 837 | 1,097 | 1,302 | 958 | 1,049 | 1,143 | 1,040 |
| 34 Cotton yarn (crore kg) | 53 4 | 80 1 | 90 7 | 92·9 | 102·5 | 100 3 | 98·1 |
| 35. Cotton cloth (crore metres) | 421·5 | 637 8 | 744 | 759·6 | 826 7 | 809 1 | 773 7 |
| (i) Mill sector (crore metres) | 340·1 | 464·9 | 440·1 | 405 5 | 445 0 | 396·1 | 379.7 |
| (ii) Decentralised sector (crore metres) | 81·4 | 208·9 | 303 9 | 354 1 | 381 7 | 413 0 | 394·0 |
| 36 Rayon yarn ('000 tonnes)[6] | 2 1 | 43 8 | 75·6 | 98·1 | 115 9 | 104 5 | 127·0 |
| 37. Artsilk fabrics (crore metres) | 28 7 | 54·4 | 87 8 | 94·7 | 86 3 | 85 6 | 90 0 |
| 38 Woollen manufactures[7] | | | | | | | |
| (i) Woollen and worsted yarn (lakh kg) | 87 | 130 | 170 | 197 | 404 | 616 | 531 |
| (ii) Woollen and worsted fabrics (lakh metre) | 61 | 133 | 92 | 143 | 227 | 293 | 232 |
| **VII. *Food Industries*** | | | | | | | |
| 39 Sugar (Oct. Sept.) (lakh tonnes) | 11 3 | 30 3 | 35 1 | 37 4 | 47 9 | 46 4 | 48·1[8] |
| 40. Tea (crore kg) | 27 7 | 32·2 | 37 6 | 42·1 | 49 4 | 62 9 | 51·2 |
| 41. Coffee ('000 tonnes) | 21 | 54 1 | 62 1 | 72·7 | 90·2 | 83 0 | 95 0 |
| 42. Vanaspati ('000 tonnes) | 170 | 340 | 401 | 558 | 353 | 489 | 537 |
| **VIII. *Electricity generated* (crore kwh)[9]** | 530 | 1,690 | 3,300 | 5,580 | 706 | 798 | 892 |

[1] Provisional
[2] Excludes output in Goa up to 1969-70
[3] Excludes output in railway workshops
[4] Includes landrovers, jeeps, utilities, station wagons and vans
[5] Includes buses, trucks, tempos and three and four wheelers
[6] Includes viscose yarn staple fibre and acetate yarn.
[7] Relates to calendar year from 72-73
[8] Relates to cOctober to August1977
[9] Relates to public utilities only

## TABLE 18.5

### INDEX OF INDUSTRIAL PRODUCTION

(Base . 1960=100) (Base : 1970=100)[1]

| 1951 | 1961 | 1966 | 1971 | Industry Group | 1975-76 | 1976-77[2] | Percentage change in 1976-77 over 1975-76 |
|---|---|---|---|---|---|---|---|
| 54 8 | 109 2 | 153 ·2 | 186 1 | General Index | 122 7 | 135 ·1 | +10 ·1 |
| 66 6 | 105 4 | 136 1 | 153 4 | Mining and quarrying | 131 8 | 137 ·8 | +4 6 |
| 37 7 | 116 3 | 207 8 | 358 5 | Electricity generated | 145 0 | 162 ·1 | +11 .8 |
| — | — | — | — | Manufacturing | 119 1 | 131 8 | +10 ·7 |
| 66 9 | 108 6 | 130 5 | 157 6 | Food Manufacturing | 106 4 | 112 4 | +5 ·6 |
| 58 0 | 107 0 | 158 9 | 182 5 | Beverage industries | 170 9 | 315 ·9 | +84 8 |
| | | | | Tobacco industries | 197 9 | 107 0 | +9 3 |
| 79 7 | 102 8 | 108 9 | 106 0 | Textiles | 105 ·0 | 104 2 | —0 8 |
| n a | 104 8 | 106 5 | 105 ·2 | Cotton textiles | — | — | — |
| n a | 89 1 | 100 4 | 94 7 | Jute textiles | — | — | — |
| 63 ·5 | 115 ·4 | 184 2 | 168 1 | Footwear (Leather) | 92 7 | 92 1 | —0 6 |
| 43 ·5 | 95 5 | 205 ·1 | 224 1 | Wood and Cork | 105 9 | 123 0 | +16 1 |
| 38 5 | 105 8 | 160 0 | 225 7 | Paper products | 109 2 | 111 ·1 | +1 7 |
| 72 4 | 100 9 | 120 ·9 | 55 3 | Leather and Fur products | 119 4 | 110 8 | —7 2 |
| 56 1 | 112 ·9 | 160 2 | 241 8 | Rubber products | 119 4 | 126 9 | +6 ·3 |
| 42 4 | 113 4 | 168 4 | 252 7 | Chemicals and Chemical products | 136 8 | 161 1 | +17 8 |
| 11 0 | 106 0 | 195 9 | 316 9 | Petroleum refinery products | 122 6 | 125 8 | +2 6 |
| 39 0 | 106 9 | 148 1 | 207 6 | Non-metallic mineral products | 126 8 | 141 7 | +11 8 |
| 46 5 | 118 7 | 191 5 | 208 6 | Basic metal industries | 121 5 | 143 5 | +18 1 |
| 30 7 | 112 4 | 208 4 | 234 4 | Metal products | 128 ·5 | 134 3 | +4 5 |
| 22 2 | 121 2 | 295 6 | 373 ·2 | Machinery except electrical machinery | 160 5 | 168 8 | +5 2 |
| 26 3 | 110 0 | 225 1 | 404 8 | Electrical machinery | 120 3 | 133 8 | +11 2 |
| 19 6 | 116 7 | 156 0 | 122 1 | Transport equipment | 114 7 | 138 9 | +21 1 |
| n a | 102 7 | 132 2 | 114 0 | Miscellaneous manufacturing industries | 71 0 | 82 1 | +15 6 |

[1]Figures for recent years in the table have been computed on new base 1970=100 The general index of industrial production in 1970 on base 1960=100 stood at 184 3

[2]Provisional n a —not available

it was able to stabilise the prices of raw jute particularly in some areas of Assam and Tripura.

**SUGAR**

The sugar industry ranks second among the major agro-industries. The number of factories went up from 138 in 1950-51 to 271 in 1976-77. Production increased from 11.34 lakh tonnes in 1950-51 to 42.64 lakh tonnes in 1975-76. During 1976-77 (October-September) production up to 7 September 1977 was 48.14 lakh tonnes as against 42.44 lakh tonnes for the corresponding period of previous year. Sugar exports during 1975-76 were 10.21 lakh tonnes as compared to 9.24 lakh tonnes in 1974-75. During 1976-77 season, 3.12 lakh tonnes were exported up to 7 September 1977. A notable feature of the development of the sugar industry after 1947 was its remarkable expansion in the cooperative sector. Out of 252 factories in 1975-76, 103 were in the cooperative sector which produced about 47.7 per cent of sugar output.

The progress of the industry since 1950-51 is shown in table 18.6.

TABLE 18.6 GROWTH OF SUGAR INDUSTRY

| | 1950-51 | 1960-61 | 1965-66 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|---|---|---|---|---|---|---|
| Number of mills | 138 | 174 | 200 | 229 | 246 | 252 | 271 |
| Production ('000 tonnes)[1] | 1,134 | 3,021 | 3,541 | 3,948 | 4,794 | 4,245 | 4,814[2] |

[1]Up to 1966-67 the sugar year was November-October but later it was changed to October-September. [2]Up to 7 July 1977

**VANASPATI**

The vanaspati industry came into existence in the beginning of 1930 with very limited production. It continued to make rapid progress up to 1971-72 when it touched the peak level of production at 5.94 lakh tonnes. However, the production of vanaspati declined during the years 1972-73 to 1974-75 mainly due to fall in production of edible oils. In 1975-76 production picked up appreciably touching the level of 5 lakh tonnes. The number of vanaspati units rose from 48 in 1950-51 to 85 in 1976-77.

**CEMENT**

Manufacture of cement was first started in Madras in 1904. A real beginning on a large scale, however, was made in 1912-13 when three companies were formed. At present, there are 54 cement factories, 9 in the public sector, with a total installed capacity of about 2.16 crores tonnes per annum. Total production of cement (all varieties) in 1976-77 was 1.7 crore tonnes as compared to 27 lakh tonnes in 1950-51.

The Cement Corporation of India, New Delhi, is the only public sector undertaking in the central sector so far as the cement industry is concerned. It has two factories, one in Karnataka and the other in Madhya Pradesh. Both have a capacity of two lakh tonnes each per annum. The factory at Bokajan in Assam with a capacity of 2 lakh tonnes per annum has started production while the one at Paonta in Himachal Pradesh, also with a capacity of 2 lakh tonnes per annum, is likely to go into production in 1978. Three more factories at Neemuch and Akaltara in Madhya Pradesh and Yerraguntla in Andhra Pradesh, each with a capacity of 4 lakh tonnes per annum, are under construction and likely to go into production during 1978-79. Cement worth about Rs 36 crores was exported during 1976-77.

The growth of the industry is traced in table 18.4.

**Asbestos Cement** The installed capacity of asbestos cement products is 6.37 lakh tonnes spread over eleven units. Production in 1976 was about 4.89 lakh tonnes as compared to 4.85 lakh tonnes in 1975.

**PAPER AND PAPER BOARD** Production of machine-made paper in India dates back to 1870, when the Bally Mills was established near Calcutta. Between 1939 and 1945 the number of mills increased to 15 and production reached 1,03,884 tonnes (1944). Rapid progress has been made since 1950. There are at present 75 paper mills with a total capacity of 11.4 lakh tonnes per annum. Production in 1976 was 8.8 lakh tonnes as against 1 09 lakh tonnes in 1951. The progress of the industry is shown in table 18.4.

The Hindustan Paper Corporation Ltd., New Delhi, a public sector undertaking, was set up in 1970 to establish pulp and paper projects in the country. The Corporation has drawn up plans to set up three pulp and paper projects and one newsprint project. The Nagaland pulp and paper project with a capacity of 33,000 tonnes per annum of pulp and writing and printing paper is expected to go into production in 1978. The other two units, namely, the Nowgong pulp and paper project and the Cachar pulp and paper project, when set up will have a capacity of one lakh tonnes each of paper and pulp per annum. The Kerala newsprint project of the Corporation on which work was started in 1975 at Velloor will have an installed capacity of 80,000 tonnes per annum of newsprint. It is likely to be completed by 1978.

**Newsprint** The National Newsprint and Paper Mills Ltd., Nepanagar in Madhya Pradesh, the only newsprint mill in the country, went into production in 1955. The mill, which is in the public sector, has an installed capacity of 60,000 tonnes per annum. An expansion programme was implemented in 1975 to raise its capacity to 75,000 tonnes annually. The production in 1976-77 was about 57,690 tonnes as compared to 55,000 tonnes in 1975-76.

**PHOTO PAPER AND FILMS** The Hindustan Photo Films Manufacturing Co. Ltd., was set up at Ootacamund in 1960 by the Government of India for the manufacture of cine, X-ray, roll and graphic art films and photo paper. The project has an installed capacity of 61.5 lakh sq. metres. During 1976-77 it produced 91.8 lakh sq. metres of various kinds of photographic material valued at Rs 34 crores as against 70 lakh sq. metres valued at Rs 23 crores in 1975-76. The company made a profit of Rs 16 05 lakhs in 1975-76.

**IRON AND STEEL** The earliest successful attempt to manufacture iron and steel by modern methods was made in the country in 1874. But the first efforts at large-scale production got under way when the Tata Iron and Steel Company (TISCO) was set up at Jamshedpur in 1907. This was followed by the establishment of the Indian Iron and Steel Company (IISCO) at Burnpur in 1919. The first unit in the public sector, now known as the Visvesvaraya Iron and Steel Works, Ltd., started functioning at Bhadravati in 1923. Aftar Independence, the development of the steel industry was considered during the First Plan but it was only in the Second Plan (1956-61) that work started to set up three

integrated steel projects each with 10 lakh ingot tonnes capacity at Bhilai, Durgapur and Rourkela An expansion programme to double the capacity of the two private sector steel plants, namely, TISCO and IISCO, to 20 lakh tonnes and 10 lakh tonnes respectively was also taken in hand The three plants in the public sector came into operation in stages between 1956 and 1962 and the expansion of the private sector factories was completed in 1959. In the Third Plan, the emphasis was an expansion of the three public sector steel plants and the setting up of a new steel works at Bokaro The Fourth Plan steel programme was based on the maximum utilization of existing steel capacity and preparation of plans to set up three new steel plants at Salem (Tamil Nadu), Vijayanagar (Karnataka) and Vishakhapatnam (Andhra Pradesh) to create additional steel capacity to meet the requirements in the Fifth Plan

There are at present six integrated steel plants in the country, four in the public sector and two in the private sector. Of the private sector plants, the management of the Indian Iron and Steel Company was taken over by the central government in 1972

Table 18.7 shows the capacity of the six integrated steel plants

TABLE 18.7 RATED CAPACITY OF STEEL PLANTS

('000 tonnes)

| Plant | Rated capacity | |
|---|---|---|
| | Ingot steel | Saleable steel |
| *Public Sector* | | |
| Bhilai | 2,500 | 1,965 |
| Durgapur | 1,600 | 1,239 |
| Rourkela | 1,800 | 1,225 |
| Bokaro | 1,700 | 1,364 |
| *Private sector* | | |
| TISCO | 2,000 | 1,500 |
| IISCO | 1,000 | 800 |
| TOTAL | 10,600 | 8,093 |

The need for locating mini steel plants at convenient points was felt so that steel requirements of far-flung areas may be met and thus promote a balanced regional growth

Three state industrial undertakings have been given letters of intent/licence for production of sponge iron aggregating to capacity of 4,30,000 tonnes Of these, the scheme of the Andhra Pradesh Industrial Development Corporation for the production of 30,000 tonnes of sponge iron per annum, based on non-coking coal as solid reductant, is being implemented with assistance under UN Development Programme The unit is expected to commence operation in 1978 and would primarily operate as a demonstration plant. Successful production of sponge iron is expected to promote production of steel including alloy steel in electric furnace units and reduce the consumption of scrap and metallurgical coke

SAIL

To Co-ordinate the development of the iron and steel industry both in public and private sectors, the Government of India set up the Steel Authority of India Ltd (SAIL), in 1973 SAIL owns all the shares in the public sector corporations connected with steel and associated industries like iron ore and manganese ore as well as all government

shares in the private sector companies. It also acts as the nominee of public sector financial institutions, which hold shares in private sector companies for steel and associated input industries, refractory units and smaller steel producing organisations. Its authorised capital was Rs 2,000 crores and paid up capital Rs 1,557 crores on 31 March 1977.

Hindustan Steel Ltd

The management of three public sector steel plants, namely, Bhilai, Durgapur and Rourkela is vested in the State owned Hindustan Steel Ltd, a subsidiary of SAIL. There is a Alloy Steels plant under it at Durgapur and fertilizer plant at Rourkela It also owns five coal washeries which supply washed coal to the steel plants in public sector.

Production of ingot steel, saleable steel and pig iron for sale from the integrated steel plants in 1975-76 and 1976-77 is shown in table 18.8

TABLE 18.8 PRODUCTION OF IRON AND STEEL

('000 tonnes)

| Plant | Ingot Steel | | Saleable Steel | | Pig Iron for sale | |
|---|---|---|---|---|---|---|
| | 1975-76 | 1976-77 | 1975-76 | 1976-77 | 1975-76 | 1976-77 |
| Bhilai | 2,209 | 2,302 | 1,850 | 2,019 | 552 | 854 |
| Durgapur | 1,001 | 1,091 | 751 | 901 | 136 | 204 |
| Rourkela | 1,282 | 1,503 | 1,041 | 1,174 | 117 | 64 |
| Bokaro | 342 | 956 | 151 | 736 | 590 | 707 |
| IISCO | 630 | 667 | 501 | 542 | — | — |
| TISCO | 1,787 | 1,908 | 1,486 | 1,550 | — | — |
| TOTAL | 7,251 | 8,427 | 5,780 | 6,922 | 1,395 | 1,829 |

Bokaro Steel Ltd

The Bokaro Steel Ltd., a subsidiary of SAIL, manages the fourth steel plant in the public sector which is being set up at Bokaro. It will have a capacity of 17 lakh ingot tonnes in the first stage and 40 lakh ingot tonnes in the second stage A recent study showed that the capacity of the plant can be expanded to about 100 lakh ingot tonnes annually. A feasibility report prepared for this expansion is under consideration.

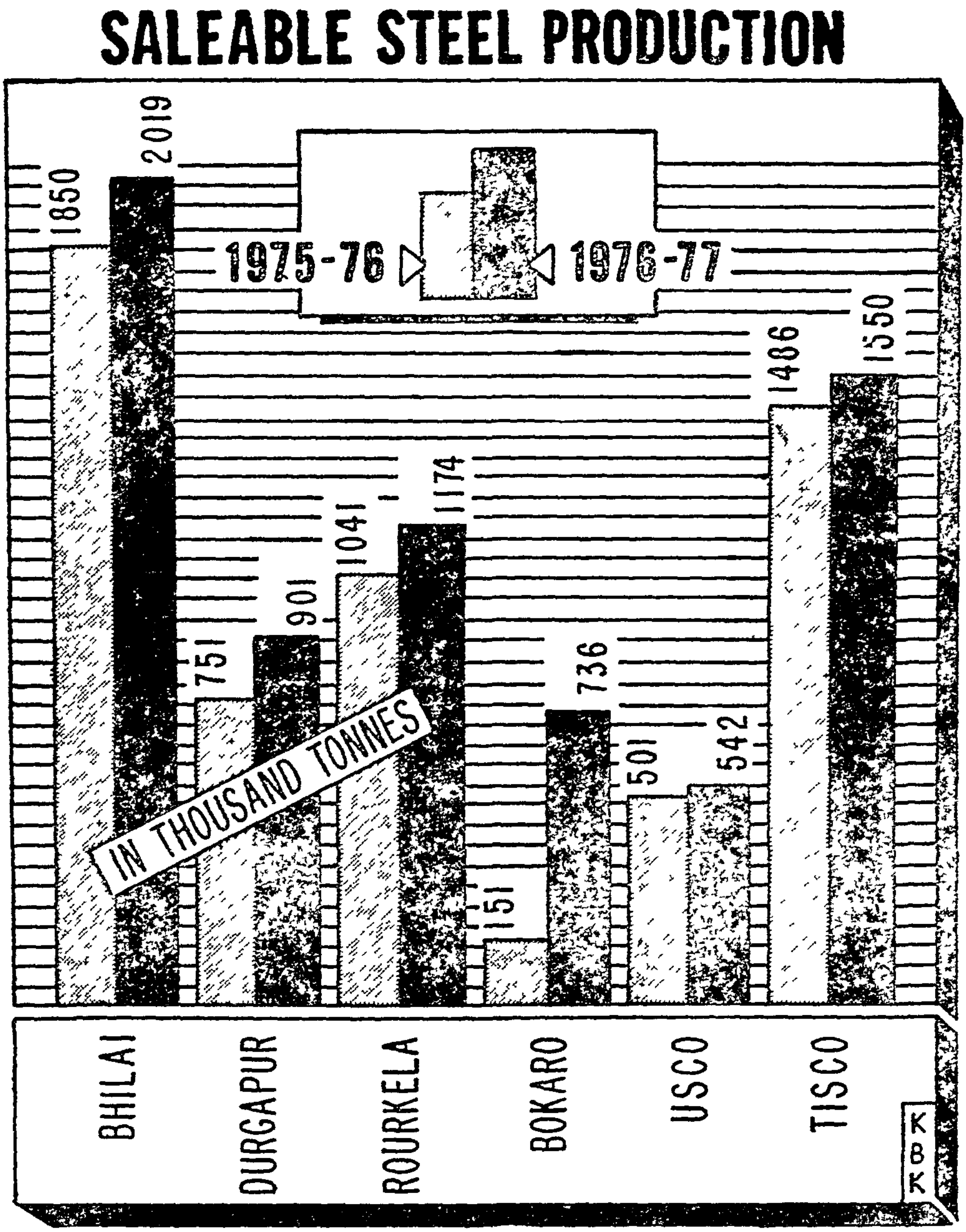
All major units of the first stage except one have been commissioned. The estimated cost involved is about Rs 981 crores. The second stage, which is likely to cost about Rs 1,072 crores, is to be completed by the end of 1982.

New Steel Plants

Three new steel plants are to be set up at Salem (Tamil Nadu), Vijayanagar (Karnataka) and Vishakhapatnam (Andhra Pradesh)

The Salem plant is planned for the production of 2,20,000 tonnes of sheet and strip products, comprising 70,000 tonnes of stainless steel, 75,000 tonnes of electrical steel and 75,000 tonnes of other special steels A new company under the name of Salem Steel Ltd., (now a subsidiary of SAIL) was set up in 1972 for implementing this project The Vijayanagar and Vishakhapatnam steel projects are being planned for an ultimate capacity of 30 lakh ingot tonnes each While the Vijayanagar steel project will produce strip products and billets, the Vishakhapatnam steel project will be designed for the production of sectional products.

Preliminary work is in progress at the project sites. The first phase of the Salem steel plant for the production of about 30,000 tonnes of cold rolled stainless steel sheets is expected to be commi-




ssioned in the Sixth Plan. The other two projects are likely to be completed towards the end of the Sixth Plan.
Production of pig iron in 1976-77 was 20 5 lakh tonnes This is expected to increase gradually to 25 lakh tonnes by the end of the fifth Plan

**Projected demand for Steel and Pig Iron**

Production of finished mild steel in 1976-77 was about 73.2 lakh tonnes The target for production in 1978-79 is 88 lakh tonnes. Production of alloy and special steels in 1976-77 was 2.9 lakh tonnes. The target for production in 1978-79 is 5.7 lakh tonnes.

The domestic demand for finished mild steel is estimated to be at about 77.5 lakh tonnes by 1978-79, while the production is expected to be 88 3 lakh tonnes including 10 6 lakh tonnes from the mini steel plants and re-rollers. Though a few special categories of steel in small quantities still need to be imported, on the whole the country has now emerged as a net exporter of steel.

MECON

To provide consultancy and engineering services in the field of iron and steel, the Central Engineering and Design Bureau of Hindustan Steel Ltd, was incorporated in 1973 as an independent company—the Metallurgical and Engineering Consultants (India) Ltd The company, which is a subsidiary of SAIL, also functions as a consultant to a number of other organisations.

The Indian steel industry has acquired a high degree of technological self-reliance. Considerable expertise in planning, detailed engineering, machine making, erection etc., has been built up in institutions like MECON and Hindustan Steel Company Ltd. India now possesses capability to plan and execute the expansion of its steel making capacity. A Research and development unit has been set up under SAIL and a research and Development plan for the steel industry has been drawn up in consultation with the Planning Commission and Department of Science and Technology. This is expected to help the steel industry to reduce production cost and enhance the value of products by process improvement and/or introduction of new technologies, thereby helping it to retain its competitiveness with other countries.

ENGINEERING INDUSTRY

The engineering industries were started only after India attained Independence. But, today, India has not only become self-reliant in a variety of engineering equipment but also exporting engineering goods The country is currently producing power generation, transmission and distribution equipment, plant and machinery for steel, chemical and fertilizer plants, electrical and construction machinery, machine tools. railway rolling stock, commercial vehicles, earth-moving equipment, agricultural equipment and a large number of other items (see table 18 4).

Export of Engineering Goods

In 1976-77 the engineering industries produced goods worth over Rs 4,000 crores. The progress made over the years is indeed remarkable as the output from the light and medium industries in 1950-51 was of only Rs 50 crores. Export of engineering goods in 1976-77 touched an all time high figure of Rs 552 crores as against only Rs 6 crores in 1950-51.

Heavy Engineering, Heavy Mechanical and Industrial Machinery

There are a large number of units in the public and private sectors which are manufacturing steel plant equipment.

The major unit in public sector manufacturing steel plant equipment, namely, the Heavy Engineering Corporation Ltd, Ranchi was incorporated in 1958 It has three units : Heavy Machine Building Plant, Foundry Forge Plant and Heavy Machine Tools Plant. The value of production of the three units during 1976-77 was Rs 86 13 crores as against Rs 80 crores in 1975-76

The Triveni Structurals Ltd, was set up at Naini, Allahabad, in 1965 to promote designing and manufacturing of sophisticated steel structures The value of production during 1976-77 was Rs 9.05 crores.

The Tungabhadra Steel Products Ltd, at Tungabhadra Dam Karnataka, manufactures structurals, transmission towers and penstock pipes The value of production during 1976-77 was Rs 3 92 crores.

The Bharat Heavy Plates and Vessels Ltd., Vishakhapatnam, was set up in 1966 for manufacturing a range of fabricating equipment required by the fertilizer and other processing industries, petroleum petro-chemicals and other heavy chemicals and allied industries The value of production during 1976-77 was Rs 29 56 crores

The Jessop and Co. Ltd, and the Richardson & Cruddas Ltd, both public sector undertakings, produced equipment worth Rs 44 24 crores and Rs 11 42 crores respectively during 1976-77.

Heavy mechanical industries produce, among other things, cranes, steel structurals, transmission towers, and conveyors. Production of cranes during 1976-77 was about 19,366 tonnes. Conveyors worth Rs 42 30 crores were produced during 1976-77.

The coal mining machinery industry is now in a position to meet practically the entire requirements of the industry A wide variety of articles like coal cutters, loaders, haulages, winders, coal combines, shuttle cars and mine locomotives are being manufactured by the public sector unit, the Mining and Allied Machinery Corporation Ltd (MAMC), at Duragapur, and a number of private sector units The value of production during 1976-77 was Rs 34.01 crores.

The estimated value of production of some selected industrial machinery for 1976 was Chemical and pharmaceutical machinery Rs 67 39 crores, sugar mill machinery Rs 37 75 crores, cement machinery Rs 9 07 crores, dairy machinery Rs 5 05 crores and printing and dye casting machinery Rs 3 04 crores

**Light Mechanical Industries**

Some of the important products of the light mechanical industries are bicycles and bicycle parts, balls and roller bearing, typewriters, timepieces and wrist watches, data processing machines, agricultural implements and light machinery The value of production for 1976 to manufacture lamps and lamp components

**Machine Tools**

The upward trend in the production of machine tools was maintained in 1976-77 One hundred and eighteen major units produced machine tools valued at Rs 113 1 crores and machine tools worth Rs 18 1 crores were exported during 1976-77 The growth rate achieved during the year was 113 per cent

Some of the important public sector undertakings manufacturing machine tools are described below .

The Hindustan Machine Tools Ltd, Bangalore, is a multi-unit company It has units at Bangalore, Pinjore (Haryana), Kalamassery (Kerala), Hyderabad and Srinagar The company has watch factories at Bangalore and Srinagar Hyderabad unit will have facilities soon to manufacture lamps and lamp components

The Central Machine Tools Institute, Bangalore, which went into production in 1965, is the primary research institute in the field of machine tools in the country Its other functions include designing, standardisation, training and documentation

The Heavy Machine Tools Plant at the Heavy Engineering Corporation produced machine tools worth Rs 6 crores during 1976-77

**Light Electrical Industries**

The production of GLS lamps was 1,596.6 lakh numbers in 1976 as against 1,289 lakhs in 1975. Fluorescent tubes production in 1976 was about 168 lakh numbers as against 169 lakhs in 1975.

**Heavy Electrical Industries**

Apart from Bharat Heavy Electricals Ltd., (BHEL) and some other public sector undertakings under the state governments, there are several large private sector units which are producing a large number of items for the heavy electrical industry. BHEL, which is a central public sector undertaking, was incorporated in 1964, consists of four units, namely, Bhopal, Tiruchirapalli, Hyderabad and Hardwar. Two more, one at Jhansi and the other at Hardwar are under construction. Construction of another unit for the manufacture of seamless steel tubes, at Tiruchi, has also started.

In 1975-76 it achieved, production of Rs 443 crores as against Rs 415 crores in 1975-76. BHEL is exporting power station equipment to Malaysia and to a number of countries in the West Asia and Africa During 1976-77, it exported power station equipment worth Rs 25 crores.

The Hindustan Cables Ltd, Rupnarainpur, West Bengal, began production in 1954 The factory. which is in the public sector, produced 10.85 lakh conductor km of dry core cables, 3,150 tube km of coaxial cables and 76,006 conductor km of plastic wires and cables during 1976-77.

The company's second unit at Hyderabad commenced production in April 1974 It produced 7.68 lakh conductor km of dry core cables during 1976-77

**Instruments**

Ten units produce industrial process control instruments. The value of production showed a marginal increase from Rs 10.72 crores in 1975 to Rs 13.54 crores in 1976. Production of scientific surveying optical and mathematical instruments decreased from Rs 8 crores in 1975 to Rs 6 7 crores in 1976 and that of X-ray and electromedical equipment increased from Rs 4.02 crores to Rs 4.77 crores in the same period. A brief description of the major public sector undertakings manufacturing various types of instruments is given below:

Instrumentation Ltd., Kota, incorporated in 1964, manufactures various industrial process control instruments. It went into commercial production in 1968 and achieved a record turnover of Rs 15 21 crores during 1976-77 as against Rs 10 60 crores in 1975-76. The undertaking is also executing the supply of instrumentation and control systems to certain power plants in Malaysia valued at Rs 3 60 crores

The National Instruments Ltd., Calcutta, manufactures various types of surveying meteorological scientific, and industrial instruments. Its production during 1976-77 and 1975-76 was Rs 2.60 and 3 33 crores respectively.

**Automobiles and Tractors**

In 1976-77 production of commercial vehicles including jeeps was 54,783. The others were: passenger cars 36,490, scooters 1,59,340 motor-cycles 72 387 Scooters India Ltd, Lucknow, a public sector undertaking with a capacity of one lakh scooters per annum went into production in 1974-75 It produced 24,338 scooters during 1976-77

There are 11 units manufacturing tractors. The total output during 1976 was 36,676 as against 32,445 in 1975.

**DRUGS AND PHARMACEUTICALS AND CHEMICALS**

Before, 1947 most of the bulk drugs were imported and only processing and formulations were done in India Since then, most of the bulk drugs are manufactured indigenously and the drugs industry has attained the status of a major industry. The value of drugs and pharmaceuticals produced during 1976-77 was about Rs 700 crores as compared to Rs 12 crores in 1948 To reduce the import of bulk drugs and to have an orderly development of the industry, two public sector projects have been set up They are the Indian Drugs and Pharmaceuticals Ltd , and the Hindustan Antibiotics Ltd. The two undertakings contribute about 35 per cent of the bulk production and 8 per cent of formulations production in the country. For the production of organic chemicals and organic formulations, the Hindustan Organic Chemicals Ltd , and the Hindustan Insecticides Ltd , have been established A brief description of the four undertakings is given below ·

**Indian Drugs and Pharmaceuticals Ltd**

The Indian Drugs and Pharmaceuticals Ltd , New Delhi, was set up in 1961 to manufacture a variety of antibiotics and wide range of drugs from the very basic stages It comprises the following three units. (i) *Antibiotics Plant, Rishikesh* : The plant produces, among others, penicillin, streptomycin, tetracycline and nystatin Production was 2,28,750 milliards, in 1976-77 as against 2,21,725 milliards in 1975-76 (ii) *Synthetic Drugs Plant, Hyderabad* : It produces a wide range of sulphas, vitamins, analgesics and anti-TB drugs Production in 1976-77 was 1,690 tonnes as against 1,519 tonnes in the preceding year. (iii) *Surgical Instruments Plant, Madras* · The plant manufactures different types of surgical instruments Its production during 1976-77 was 4,34,340 instruments as against 2,10,067 instruments in 1975-76

Government has approved the expansion of synthetic drug plant, Hyderabad, involving investment of Rs 21 79 crores which will increase the production capacity from 1,988 tonnes to 3,866 tonnes per annum The establishment of a plant for the manufacture of nicofinamide and other chemicals at Bettiah in Bihar, involving capital outlay of Rs 8 58 crores, has been approved These plants are expected to be completed during the Fifth Plan period

**Hindustan Antibiotics Ltd**

The Hindustan Antibiotics Ltd , Pune, was incorporated in 1954 It undertakes basic manufacture of penicillin, streptomycin and vitamin C The production of penicillin and streptomycin was 71 46 mmu and 85.90 tonnes during 1976-77 as against 64 78 mmu and 61 79 tonnes in the preceding year

**Hindustan Organic Chemicals Ltd**

The Hindustan Organic Chemicals Ltd , Rasayani (Maharashtra) incorporated in 1960. manufactures various organic chemicals and intermediates required by drugs dyestuffs and plastic industries. At present it manufactures 12 chemical groups. Their production during 1976-77 was 57,800 tonnes as against 56.670 tonnes during 1975-76

**Hindustan Insecticides Ltd**

The Hindustan Insecticides Ltd , New Delhi, incorporated in 1954, is a major producer of insecticides like DDT. It has two factories at Delhi and Alwaye (Kerala) Production of DDT (Technical) at Delhi and Alwaye factories during 1976-77 was 3,150 and 1,373 tonnes respectively The Alwaye unit also produces BHC and its production during 1976-77 was 1,572 tonnes

**PETRO-CHEMICALS**

Two petro-chemical complexes of the Union Carbide India Ltd., and National Organic Chemicals Ltd., (private sector undertakings) started production in 1967 and 1968 respectively. To step up the establishment of petro-chemical complexes around the public sector refineries, the Indian Petro-chemicals Corporation Ltd, (IPCL) was set up at Jawaharnagar in Gujarat in 1969 as a wholly owned company of the Government of India. The DMT unit of its aromatics plant produced 24,095 tonnes of DMT in 1976-77. The xylene plant, which went into production in 1973, produced 2,385 tonnes of mixed xylene during 1976-77.

A separate company, Bongaigaon Refinery and Petrochemicals Ltd., registered in 1974 is to implement the refinery and petrochemical complex at Bongaigaon.

Production of plastics in the country was 1,02,801 tonnes in 1976. Synthetic fibre production was 44,624 tonnes and synthetic rubber production was 23,503 tonnes in 1976.

**FERTILIZERS**

The fertilizer industry, in view of its basic importance to the development of agriculture, has been placed in the core sector for industrial licencing purposes At the time of independence, the industry consisted of only a few plants manufacturing single super phosphate and ammonium sulphate as a by-product from smelter gases The first large sized plant for the manufacture of nitrogenous fertilizers was set up at Alwaye in Kerala in 1947. Subsequently another large sized plant was set up at Sindri in the public sector which went into production in October 1951. The industry has since made rapid strides over the years; from a capacity for manufacture of 85.000 tonnes of nitrogen and 63 5 thousand tonnes of $P_2O_5$ at the beginning of the First Plan (1951-52) the capacity has risen to 26 69 lakh tonnes of nitrogen and 6 9 lakh tonnes of $P_2O_5$ at the end of 1975-76. On 31 March 1976, there were 21 factories producing nitrogenous fertilizers and 40 factories producing $P_2O_5$ (9 units being common for both N and $P_2O_5$). Another 17 projects with a total capacity of 22 5 lakh tonnes of nitrogen and 6 20 lakh tonnes of $P_2O_5$ are presently in various stages of execution. The plants at Tuticorin (SPIC) with a capacity of 2,58,000 tonnes of nitrogen, Gorakhpur expansion (FCI) with 51,000 tonnes and Mangalore unit with 1,60,000 tonnes of nitrogen, went into production during 1975-76.

Production of fertilizer in 1975-76 was 19 lakh tonnes of nitrogen and 4.8 lakh tonnes of $P_2O_5$ as compared to 16,000 tonnes of nitrogen and 11,000 tonnes of $P_2O_5$ in 1951-52 Requirements of Potassic fertilizers are met entirely through imports.

The public, private as well as cooperative sectors have been assigned a definite role in development of the industry Now there are 5 public sector undertakings, namely, FCI, FACT, MFL, Rourkela Unit and Neyveli Unit.

The Fertilizer Corporation of India, which was set up in 1961 with two operating units at Sindri and Nangal, has grown into a huge organisation with six operating units and ten units under construction as on 31 March 1976 The operating units are at Sindri (Bihar); Nangal (Punjab); Trombay (Maharashtra), Gorakhpur (UP), Namrup (Assam); and Durgapur (West Bengal). The units under construction are at Barauni (Bihar), Namrup expansion (Assam); Ramagundam (Andhra Pradesh); Talcher (Orissa); Sindri modernisation (Bihar); Sindri rationalisation (Bihar); Trombay expansion (Maha-

rashtra), Haldia (West Bengal); Nangal expansion (Punjab) and Korba (Madhya Pradesh).

The Fertilizers and Chemicals Travancore Ltd. (FACT), has two operating units at Alwaye and Cochin. Work on the second stage of the Cochin unit with the assistance of the World Bank is also under way.

The Madras Fertilizer Ltd, a joint sector undertaking, was formed in 1966 The factory, with a capacity of 1 64 lakh tonnes of nitrogen and 85,000 tonnes of phosphate, went into production in 1971.

With the completion of its 3rd stream for production of complex fertilizers, its total installed capacity will increase from 1.64 lakh tonnes of nitrogen and 0.85 lakh tonnes of $P_2O_5$ to 1.76 lakh tonnes of nitrogen and 1.12 lakh tonnes of $P_2O_5$

The Rourkela steel plant which produces calcium ammonium nitrate based on coke oven gas from the Rourkela steel plant, was commissioned in 1962.

The Neyveli unit which is a part of the Neyveli Lignite Corporation produces ammonium sulphate, based on lignite as feedstock

The major units in the private sector are at Kanpur, Goa Vishakhapatnam, Kota, Tuticorin, Baroda, Mangalore, Ennore and Varanasi. In the cooperative sector, IFFCO has two units at Kalol and Kandla

Over the years India has also developed considerable expertise in the design, engineering, erection, commissioning and operation of fertilizer and allied chemical plants in the country The planning and development Division of the Fertilizer Corporation of India, FACT, Engineering and Design Organisation and Engineers India Ltd, are the stateowned engineering and consultancy firms in the field India has also developed the capacity for the manufacture/fabrication of wide range of plant and equipment used in the fertilizer and allied chemical plants. BHEL, Hyderabad and BHPV, Vishakhapatnam are the major public sector organisations manufacturing equipment for fertilizer industry

## MINING AND MINERALS

**MINERAL RESOURCES**

India is richly endowed with minerals The estimated deposits of some of the principal minerals found in the country are given below .

*Apatite and Phosphorite*

Apatite deposits of commercial importance exist in the Singhbhum district of Bihar and Vishakhapatnam district of Andhra Pradesh Deposits of phosphorite are located in Madhya Pradesh, Rajasthan and Uttar Pradesh They have been estimated at about 13.96 crore tonnes

*Bauxite*

Important deposits occur in Bihar, Goa, Gujarat Karnataka, Madhya Pradesh, Maharashtra, Orissa and Tamil Nadu Promising reserves have been located in Andhra Pradesh, Goa, Kerala, Uttar Pradesh and Jammu and Kashmir. The reserves of bauxite of all grades have been estimated at 125 crore tonnes

*Coal and Lignite*

Vast deposits of coal of Gondwana formation occur in Andhra Pradesh, Bihar, Madhya Pradesh, Maharashtra, Orissa and West Bengal and of the tertiary formation in Arunachal Pradesh, Assam, Megha-

laya and Nagaland. The overall reserves of coal, both coking and non-coking have been estimated at 8,577 crore tonnes. Of these, the reserves of coking coal in the Gondwana coalfields alone are about 1,940 crore tonnes.

Significant reserves of lignite occur in Gujarat, Jammu and Kashmir, Rajasthan and Tamil Nadu The total estimated reserves are about 210 crore tonnes.

*Chromite* Deposits of economic significance occur in Bihar, Karnataka, Maharashtra, Orissa and Tamil Nadu The total reserves of *insitu* chromite, including lump and fine varieties, are about 1 73 crore tonnes

*Copper Ore* The important copper ore bearing areas are Agnigundala in Andhra Pradesh, Chitradurga, Kalyadi and Thinthini in Karnataka, Singhbhum Mosabani and Rakha in Bihar, Malanjkhand in Madhya Pradesh and Khetri and Dariba in Rajasthan Besides, minor deposits are also known in Gujarat, Orissa and Sikkim The aggregate reserves have been estimated at about 25 crore tonnes

*Diamond* The Panna diamond belt, the only diamond producing area in the country is spread over the districts of Panna, Chhatarpur and Satna (only some parts) in Madhya Pradesh as well as some parts of Banda district of Uttar Pradesh. The diamond field in the south is spread over the districts of Anantapur, Cuddapah, Kurnool and Krishna in Andhra Pradesh and Bellary in Karnataka.

*Gold* There are three important groups of gold mines in the country, *viz.*, Ramagiri gold field, Anantapur district, Andhra Pradesh; Kolar gold field, Kolar district, and Hutti mines, Raichur district, in Karnataka Karnataka is the only gold producing state in the country.

*Gypsum* Deposits of gypsum are estimated at 121.6 crore tonnes in Rajasthan and Tamil Nadu.

*Ilmenite* It occurs mainly in the eastern and western coasts of India, associated with the beach sands Of the workable deposits of this type, those in Kerala and Tamil Nadu are important Total inferred reserves of ilmenite in beach sands have been put at over 13.4 crore tonnes

*Iron Ore* Large deposits occur in Bihar, Goa, Karnataka, Madhya Pradesh, Maharashtra, Tamil Nadu and Orissa. The estimated reserves of hematitic ore, containing 55 per cent and more of iron, are about 965 crore tonnes Besides this, about 298 crore tonnes of magnesite ore reserves have also been estimated

*Lead-Zinc Ore* The known reserves of lead-zinc ore are located in Gujarat and Rajasthan Lead ore deposits are known to exist at Agnigundala in Andhra Pradesh and Sargipalle in Orissa The total reserves have been estimated at about 11 crore tonnes

*Manganese Ore* Rich deposits of manganese ore are located in Andhra Pradesh, Goa, Karnataka, Madhya Pradesh, Maharashtra and Orissa The total measured, indicated and inferred reserves are 8 crore tonnes

*Mica*

Economic deposits of mica are found in three important belts in Andhra Pradesh, Bihar and Rajasthan.

*Nickel Ore*

Nickel ore is found in the Cuttack and Mayurbhanj districts of Orissa. The total reserves are placed at 5.81 crore tonnes, of which 4.087 crore tonnes are estimated in Kansa block and 1 474 crore tonnes in Saruabil-Sukarangi area

*Oil*

The potential oil-bearing areas are located in Assam, Tripura, Manipur, West Bengal, Ganga Valley, Punjab, Himachal Pradesh, Kutch, eastern and western coastal areas (in Tamil Nadu, Andhra Pradesh and Kerala), Andaman and Nicobar Islands, Lakshadweep and in the offshore areas in the continental shelf.

*Refractories*

Important deposits of Magnesite are found in Karnataka, Salem district, (Tamil Nadu) and Almora district (Uttar Pradesh) The total *insitu* reserves of magnesite are about 52 41 crore tonnes The estimated reserves of sillimanite are about 35 lakh tonnes, of which nearly 2.5 lakh tonnes are in Sonapahar area of Meghalaya and 1 lakh tonnes in Pipra area of Madhya Pradesh In the beach sands of Kerala and Tamil Nadu the reserves of sillimanite bearing sands are estimated at 1 3 crore tonnes with about 5 per cent sillimanite Total estimated reserves of kyanite are 38 lakh tonnes which is found in Bihar, Karnataka, Maharashtra and Orissa The kyanite deposit around Lapsa Buru in Singhbhum district of Bihar is the largest deposit of its kind in the world

Airborne Mineral Surveys and Exploration

To accelerate the search for base metal deposits in the country, the Government of India launched two airborne geophysical surveys, namely. 'Operation Hardrock' and BRGM/CGC project in 1967 and 1971 respectively

Follow up explorations carried out after surveys indicate base metal deposits in Andhra Pradesh, Bihar and Rajasthan

Mineral Production

The value of mineral production (excluding atomic minerals) has increased considerably during the last two decades, from Rs 82 3 crores in 1951 to Rs 1,291 crores in 1976 The share of fuels group was the largest, Rs 965 crores, followed by non-metallic minerals Rs 172 crores and metallic minerals Rs 153 8 crores The data on the value of mineral production in India, excluding atomic minerals, for selected years since 1951 are given in table 18.9 and quantity and value of mineral production (by minerals) during 1975 and 76 table 18 10

TABLE 18 9
VALUE OF MINERAL PRODUCTION

(Rs crores)

| Year | 1951 | 1961 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976[1] |
|---|---|---|---|---|---|---|---|---|---|
| Value | 82 3 | 181 2 | 488 8 | 502 9 | 542 | 574 | 863 | 1,224 | 1,291 6 |

[1] Provisional, 'includes the estimated value for 'minor minerals'

TABLE 18 10
QUANTITY AND VALUE OF MINERAL PRODUCTION

| Mineral (units) | 1975 | | 1976[1] | |
|---|---|---|---|---|
| | Quantity | Value (Rs '000) | Quantity | Value (Rs '000) |
| *Total value of all minerals* | | 1,22,41,233 | — | 1,29,15,951 |
| Fuels (total value) | — | 92,27,252 | — | 96,58,022 |
| Coal ('000 tonnes) | 95,911 | 67,56,509 | 1,01,036 | 71,03,892 |
| Lignite | 2,822 | 1,48,615 | 3,895 | 1,84,806 |
| Natural gas[2] (crores cubic metres) | 125.2 | 45.960 | 151 4 | 52 770 |
| Petroleum (crude) ('000 tonnes) | 8,283 | 22,76,168[11] | 8,430 | 23,16,564[4] |
| *Metallic minerals (total value)* | | 14,75,074 | | 17,19,601 |
| Bauxite ('000 tonnes) | 1,274 | 34,060 | 1,448 | 41,399 |
| Chromite (tonnes) | 5,00,294 | 1,27,069 | 4,02,118 | 1,93,924 |
| Copper Ore ('000 tonnes) | 1,834 | 1,95,902 | 2,380 | 2,17,041 |
| Diaspore (tonnes) | 2,734 | 647 | 10,075 | 1,417 |
| Gold[3] (kilogram) | 2,825 | 1,27,990 | 3,132 | 1,60,572[4] |
| Iron ore (total '000 tonnes) | 41,794 | 7,66,971 | 43,443 | 8,28,864 |
| Lead concentrates (tonnes) | 15,117 | 25,264 | 15,858 | 31,830 |
| Manganese ore ('000 tonnes) | 1,605 | 1,34,032 | 1,760 | 1,56,892 |
| Silver[3] (kilogram) | 2,582 | 2,555 | 3,180 | 3,325 |
| Tungsten concentrates (kilogram) | 37,592 | 2,322 | 44,283 | 3,267 |
| Zinc concentrates (tonnes) | 39,150 | 50,262 | 45,322 | 81,070 |
| *Non-metallic minerals (total value)* | — | 15,37,907 | — | 15,37,896 |
| Agate (tonnes) | 1,662 | 448 | 2,741 | 837 |
| Apatite (tonnes) | 30,338 | 3,896 | 38,180 | 7,373 |
| Phosphorite (tonnes) | 4,55,243 | 1,63,047 | 6,44,119 | 1,70,108 |
| Asbestos (tonnes) | 20,312 | 7,747 | 23,737 | 9,844 |
| Ball-clay (tonnes) | 25,941 | 580 | 30,984 | 721 |
| Barytes (tonnes) | 1,82,126 | 6,760 | 1,94,949 | 8,402 |
| Calcite (tonnes | 13,614 | 468 | 20,698 | 1,101 |
| Chalk (tonnes) | 45,339 | 1,899 | 61,088 | 12,744 |
| Clay (others) ('000 tonnes) | 173 | 659 | 238 | 833 |
| Corundum (tonnes) | 313 | 185 | 525 | 293 |
| Diamond (Carats) | 19,994 | 12,684 | 20,487 | 9,987 |
| Dolomite ('000 tonnes) | 1,457 | 43,756 | 1,862 | 48,324 |
| Emerald (Crude) (Carats) | 38,280 | n d. | 825 | n d. |
| Emerald(dressep) | n a | n.a | — | — |
| Felspar (tonnes) | 42,572 | 1,156 | 54,893 | 1,505 |
| Fireclay[5] ('000 tonnes) | 672 | 9,669 | 661 | 11,066 |
| Fluorite (Grade (tonnes) | 3,067 | 3,600 | 3,643 | 4,556 |
| Fluorite (Concentrates)[6] (tonnes) | 11,598 | 13,834 | 13,989 | 20,541[4] |
| Acid grade (tonnes) | 4,972 | 7,116 | 9 718 | 14,270[4] |
| Metallurgical grade (tonnes) | 6,626 | 6,718 | 4,271 | 6,271[4] |
| Garnet (Abrasive) tonnes | 4,432 | 432 | 2,069 | 100 |
| Garnet (gem) (Kilogram) | 420 | 3 | 3,570 | 30 |
| Graphite (r.o m ) (tonnes) | 31,255 | 3,390 | 39,425 | 4,075 |
| Gypsum ('000 tonnes) | 816 | 12,960 | 727 | 13,770 |
| Jaspar (tonnes) | 1,509 | 91 | 1,594 | 97 |
| Kaolin[7] ('000 tonnes) | 371 | 19,503 | 433 | 23,955 |
| Natural[8] ('000 tonnes) | 272 | 4,276 | 330 | 6,396 |
| Processed[9] ('000 tonnes) | 99 | 15,227 | 103 | 17,559 |
| Kyanite (tonnes) | 52,673 | 13,680 | 48,331 | 16,100 |
| Limestone ('000 tonnes) | 26,531 | 5,09,167 | 29,421 | 4,72,418 |
| Limekankar ('000 tonnes) | 282 | 2,816 | 85 | 552 |
| Limeshell ('000 tonnes) | 99 | 4,872 | 99 | 13,626 |
| Calcareoussand ('000 tonnes) | 902 | 8,403 | 1,074 | 10,292 |
| Magnesite (tonnes) | 3,13,453 | 29,735 | 3,29,647 | 29,914 |
| Mica (crude)[11] | 11,501 | 24,366 | 9,356 | 19,757 |
| Mice (Waste) [11] (tonnes) | 4,222 | — | 4,227 | — |
| Ochre (tonnes) | 97,902 | 1,829 | 89,662 | 1,660 |

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Pyrites(tonnes) | 50,633 | 11,646 | 51,951 | 12,727 |
| Pyrophyllite (tonnes) | 15,102 | 490 | 33,904 | 982 |
| Quartz ('000 tonnes) | 158 | 2,820 | 180 | 3,668 |
| Quartzite ('000 tonnes) | 167 | 3,943 | 221 | 4,298 |
| Fuchsite Quartzite (tonnes) | — | — | 63 | 180 |
| Silica sand ('000 tonnes) | 418 | 7,574 | 457 | 8,789 |
| Moulding sand ('000 tonnes) | 70 | 432 | 70 | 422 |
| Sand (others) ('000 tonnes) | 1,107 | 4,019 | 1,218 | 3,951 |
| Salt (rock) (tonnes) | 3,330 | 566 | 4,438 | 754 |
| Sillimanite (tonnes) | 8,278 | 2,604 | 14,859 | 5,068 |
| Slate (tonnes) | 3,661 | 205 | 3,816 | 260 |
| Staurolite (tonnes) | 11 | 6 | 3 | |
| Steatite ('000 tonnes) | 217 | 8,581 | 214 | 9 004 |
| Sulphur ([10]tonnes) | 6,200 | 5,081 | 7,348 | 4 637 |
| Vermiculite (tonnes) | 2,245 | 124 | 3,452 | 781 |
| Wollastonite (tonnes) | 1,102 | 40 | 4,541 | 163 |
| Minor Minerals (value) | | 5,88,231 | — | 5,88,231[4] |

[1]Includes estimates for 'minor minerals'
[2]Relates to gas utilised.
[3]Relates to metal.
[4]Estimated
[5]Includes partly the output of fireclay incidentally recovered from the collieries,
[6]Source : Gujarat Mineral Development Corporation Ltd ,
[7]Also known as chinaclay.
[8]Kaolin natural refers to the mineral produced and consumed as such
[9]Kaolin processed refers to the kaolin obtained after processing the run of mine materials
[10]Recovered while processing crude petroleum by M/s Madras Refineries Ltd, Madars
[11]Provisional
n a. Not available
n d Not determined

**SOME ORGANISATION**

Several public sector organisations are functioning in the country for the mapping and exploration of minerals, research and exploitation of minerals Some of the organisations are described below :

**Geological Survey of India**

The Geological Survey of India (GSI), Calcutta, is the principal agency for mapping and exploration of minerals During 1976-77, it covered an area of about 46,590 sq km in different parts of the country by systematic geological mapping and 4,965 sq km by large scale mapping In addition about 97,895 metres of drilling was carried out for various minerals

**Mineral Exploration Corporation**

The Mineral Exploration Corporation (MEC) was formed in 1972 for detailed mineral exploration, and for providing consultancy and expert services, in turn-key projects. It has carried out 3.3 lakh metres of drilling, 10,700 metres of mining and 7,065 cm of trenching till 31 July 1977 since its inception for exploration of various mineral deposits in the country.

**Indian Bureau of Mines**

The Indian Bureau of Mines was established in 1948 It carries out research on benefication of low grade ores and analysis of ores and minerals Another important function is collection and publication of mineral information and statistics It also assists the central government in the formulation of its mineral policy and carries out market surveys for mineral commodities in national and international markets. It provides technical consultancy services to the mining industry.

**National Mineral Development Corporation Ltd**

The National Mineral Development Corporation Ltd. (NMDC), Hyderabad, was set up in 1958 for exploitation of minerals other than oil and natural gas and coal. The Corporation is a subsidiary of SAIL.

Mining and exploitation of specific iron ore deposits is its main sphere of work at present. The Corporation operates diamond mines in Panna district of Madhya Pradesh, iron ore mines of Kiriburu in Orissa and Bailadila 14 in Madhya Pradesh. The Kiriburu mine is being modified and expanded to meet the requirements of the Bokaro Steel Plant. The mine at Bailadila 14 is earmarked entirely for exports to Japan under a long term contract.

Other important projects presently under development by NMDC are Bailadila (deposit 5), mechanised mine at Donimalai in Karnataka and pelletisation plant to utilise the fines generated at Donimalai.

Production of iron ore during 1975-76 was 4.2 crore tonnes as against 3.61 crore tonnes in 1974-75.

**Bharat Aluminium Company Ltd**

The Bharat Aluminium Company Ltd., New Delhi, was set up in 1965 to implement two aluminium projects: (i) a 50,000 tonne per annum integrated aluminium project in the Ratnagiri area of Maharashtra, and (ii) a 1,00,000-tonne integrated aluminium project at Korba in Madhya Pradesh. The first stream of the Korba Alumina Plant was commissioned in April 1973 The first phase of the smelter was commissioned in May 1975. The second phase was completed in June 1976 The third and fourth phases are in progress.

**Hindustan Copper Ltd**

The Hindustan Copper Ltd , Calcutta, is responsible for developing the copper deposits in the country. The projects of the company are the Khetri, Chandmari and Dariba copper projects in Rajasthan, Indian copper complex at Rakha in Bihar, Agnigundala copper-lead project in Andhra Pradesh and Malanjkhand copper project in Madhya Pradesh The Khetri project has been completed and most of the units have already been commissioned.

The Hindustan Copper Ltd., produced about 25,000 tonnes of blister copper metal in 1975-76.

**Bharat Gold Mines Ltd**

The Bharat Gold Mines Ltd., Oorgaum, Karnataka, took over the management of the Kolar Gold Mining Undertaking, a departmental undertaking, from 1 April 1972. Production of gold in 1976-77 was 22.04 lakh gm as compared to 17.5 lakh gm in 1975-76.

**ZINC AND LEAD**

There are at present three zinc smelters in the country, two operated by the Hindustan Zinc Ltd., in the public sector and the other by Cominco Binani Zinc Ltd., in the private sector. The public sector smelters are at Debari (Rajasthan) and Vishakhapatnam (Andhra Pradesh) the private sector smelter at Alwaye (Kerala). The total installed capacity of the three smelters is 95,000 tonnes per annum An expansion programme of the zinc smelter at Debari is under way to increase its capacity from 18,000 to 45,000 tonnes per annum.

There is only one lead smelter at Tundoo (Bihar) in the public sector which is based on the Zawar ore deposits. The smelter, which is being modernised, has a capacity of 8,000 tonnes per annum

To develop zinc and other allied metals, the Hindustan Zinc Ltd , a central government undertaking, was set up in 1966 at Udaipur, Rajasthan It is one of the only two zinc producers and the only

producer of lead in the country. There are five constituent units of the undertaking, namely, (i) Zawar mines, Rajasthan, (ii) zinc smelter( Debari, Rajasthan, (iii) lead smelter, Tundoo (Bihar), (iv) Rajpura Dariba mines and (v) zinc smelter, Vishakhapatnam (Andhra Pradesh)

The Bhotang deposits in Sikkim are being worked by Sikkim Mining Corporation, a company owned by the Government of India and Sikkim Government

Indigenous production of zinc and lead during 1976-77 was 16,174 and 6,181 tonnes respectively.

## PLANTATION INDUSTRIES

Tea, coffee and rubber plantations together cover only about 0.4 per cent of the cropped area, yet tea is one of the largest foreign exchange earner for the country These industries, concentrated largely in the north-east and along the south-west coast, employ over 12 lakh workers.

### TEA

The production of tea in 1976-77 was the highest ever recorded It was 51 crore kg. The production during 1975-76 was 48 7 crore kg Export earnings from tea in 1976-77 totalled Rs 292 87 crores as compared to Rs 236.92 crores during 1975-76.

#### Instant Tea

During the past few years there has been an increase in the production and export of instant tea The exports of instant tea were of the order of 5.84 lakh kg in 1976-77 and 4.78 lakh kg in 1975-76 valued at Rs 250.66 lakhs and Rs 191 62 lakh respectively The unit value increased from Rs 40.12 in 1975-76 to Rs 42 95 during 1976-77.

The Tea Board, which is the principal agency for the development of the tea industry, is implementing a number of schemes to increase production. These include long-term loans to tea estates, provision of facilities for acquiring machinery on hire-purchase basis and grant of subsidy to the industry for replanting over-aged tea bushes A Tea Trading Corporation at Calcutta has also been set up which markets Indian tea in consumer packs in certain selected countries

### COFFEE

Production of coffee during 1976-77 was about 1,02,500 tonnes, Comprising 65,000 tonnes of Arabica and 37,500 tonnes of Robusta For 1976-77 it is estimated to be 1,10,000 comprising 65,000 tonnes of Arabica and 45,000 tonnes of Robusta. The exports of coffee were of the order of Rs 151 32 crores in 1976-77 as against Rs 66.65 crores in 1975-76

The Coffee Board, which is responsible for the development of coffee industry, has undertaken a coffee development plan to improve the yield and quality of coffee For this purpose, it advances loans to coffee growers

### CARDAMOM

India is the largest exporter of cardamom and accounts for 70 per cent of the world trade Production in 1976-77 was about 2 200 tonnes Export earnings during 1976-77 were valued at Rs 18 77 crores as against Rs 19 19 crores in 1975-76

### RUBBER

The production of natural rubber during 1976-77 was 1 50 000 tonnes as against 1,37,750 tonnes during 1975-76 Owing to increased indi-

genous availability of rubber, the Government of India had banned the import of natural rubber from 1973-74.

The Rubber Board assists the industry in its problems and decides on major issues pertaining to it. It introduced a replanting subsidy scheme in 1957, under which Rs 7 95 crores were granted as subsidy up to 31 May 1976

## VILLAGE AND SMALL INDUSTRIES

Although there has been an impressive development of large-scale industries during the two and a half decades of planned development, India still remains predominantly a country of village and small industries. About two crore persons are engaged in these industries, of whom nearly 90 lakhs work in the handloom industries, *i.e.*, more than the total number of persons employed in the organised industries and mining put together.

The small-scale and village industries sector covers a wide range of traditional and modern small-scale industries including handloom, Khadi, powerloom, sericulture, coir, handicrafts, village industries and mechanised small-scale industries.

**Development**

Long before the Industrial Revolution in the West, India was known as the industrial workshop of the world. Indian textiles, calicoes, muslins and metalware were prized abroad. Under the British rule, however, these flourishing industries suffered rapid decay for, they had to make room for the mass-produced British goods

It was after Independence that action was initiated to solve their age-old problems, such as, lack of credit facilities, outmoded methods and techniques, absence of organised marketing, unsatisfactory arrangements for the supply of raw materials and competition from large-scale units The union government set up a number of agencies to help the village and small industries These include the Small Scale industries Board, the Khadi and Village Industries Commission, the All India Handicrafts Board, the All India Handloom Board, the Coir Board and the Central Silk Board. Apart from this, credit facilities are made available to these industries through a number of institutions. Industrial estates and rural industrial projects have been set up and industrial co-operatives have been organised State Directorates of Industries and other agencies are responsible for their development in the states.

To determine the requirement of the small-scale sector for framing suitable policy for further development, a national census of small-scale industries, planned and organised by the Small Industries Development Organisation with the participation of the State Directorates of Industries, was completed during 1975-76. The census operations covered all the small-scale industries (2,99,186) within the purview of SIDO A data bank cell had started functioning in SIDO which is likely to grow into a centralised agency for collection, maintenance and dissemination of data regarding the small scale sector

From 1 May 1975, the central government had revised the definition of the small-scale industries to cover "undertakings having investments in fixed assets in plant and machinery not exceeding Rs 10 lakhs and in the case of ancillary industries Rs 15 lakhs" Apart from the increase in the monetary ceiling, the new definition for ancillaries involves changes in the following important respects : (i) units pro-

ducing intermediates will not be recognised as ancillaries (ii) units providing servicing facilities i.e sand-blasting, pressure cleaning, grinding, etc., will be recognised as ancillaries (iii) the concept of "parent" unit will now include small scale industries also. Thus one small industry can function as ancillary to another and (iv) A unit to be recognised as ancillary should supply or propose to supply at least 50 per cent of its production to one or more parent units.

Expenditure under Plans

During the first three Plans, Rs 458.76 crores were spent by the central and state governments for the development of village and small industries The expenditure during the Annual Plans (1966-69) was Rs 132 55 crores. In the Fourth Plan, the expenditure was Rs 250 crores as against the outlay of Rs 293 crores. The Fifth Plan outlay for the development of these industries is Rs 535.03 crores.

## SMALL-SCALE INDUSTRIES

The number of small-scale units registered on a voluntary basis with the industries directorates of different states and union territories went up from 36,000 in 1961 to about 5 26 lakhs in 1976. They constitute 90 per cent of the total registered factories and account for about 40 per cent of total production in the registered manufacturing sector. According to an assessment, small-scale units covered under the programme of Small Industries Development Organisation were providing employment to 55 lakh workers in 1976 Their output was worth about Rs 12,400 crores. Apart from the quantitative growth, there has also been a significant increase in the variety of products manufactured by these units Small-scale sector has ventured into many new and sophisticated fields of production which include TV sets, cardiac pacemakers, ECG machines and hearing aids. They also supply parts and components to large-scale industries engaged in the manufacture of machine tools, bicycles, automobiles, electrical appliances and machinery. To encourage the small-scale sector, the central government has reserved 180 items for exclusive production in the sector.

Credit Facilities

Small-scale sector is included in the priority sector for the supply of institutional credit It receives financial assistance from state governments, State Financial Corporations and banking institutions Scheduled commercial banks extended credit to 3.97 lakh units by 31 December 1976 amounting to Rs 1,999.1 crores in terms of amounts outstanding was Rs 1,421 crores.

The Credits Guarantee Scheme, as modified in 1970, has made a substantial contribution to the volume of outstanding and actual advances The scheme is now being availed of by 211 credit institutions including the State Bank of India and its subsidiaries, nationalised banks, State Financial Corporations and a few co-operative banks The International Development Association also has sanctioned a line of credit for $ 25 crores to the Government of India Its rupee equivalent would be re-lent to IDBI for refinancing loans disbursed by SFCs

Import Policy and Raw Materials

The import policy for small scale units has been substantially liberalised in 1976. Units getting licences up to Rs 50,000 would now get licences automatically without showing any consumption. They would also obtain these licences up to Rs 50,000 in free foreign exchange The policy has been further liberalised for science graduates, graduate

engineers, diploma holders, ex-service personnel, scheduled castes and tribes and units set up in 102 selected backward areas.

**Small Industries Development Organisation**

Technical advice and assistance to small-scale manufacturers is provided by the Small Industries Development Organisation through its network of 16 service institutes, 27 branch institutes, 41 extension, and 7 production and training centres The organisation also provides common service and tool room facilities in workshops attached to small industries, service institutes and extension centres. It conducts courses in management and technical disciplines. During 1976-77, it provided technical assistance to 1.5 lakh entrepreneurs and visited 65,000 factories for spot guidance.

Two new centres, namely, the Central Institute of Tool Designs, Hyderabad and The Institute for Design Electrical Measuring Instruments, Bombay have started providing technical guidance and training for entrepreneurs

Four Regional Testing Centres are set up at New Delhi, Calcutta, Bombay and Madras for providing testing facilities in mechanical, metallurgical, chemical and electrical trades. Besides, two new tool rooms at Calcutta and Ludhiana are being set up

**National Small Industries Corporation**

The National Small Industries Corporation, which was set up in 1955, operates the scheme of producing machinery for small-scale manufacturers on a hire-purchase basis on concessional terms It also assists the small-scale sector in processing orders from government departments and agencies The Prototype Development and Training Centres set up with American, West German and Japanese assistance at Rajkot, Okhla (Delhi) and Howrah impart training to persons engaged in small-scale industries.

**Industrial Estates**

Several industrial estates have been set up all over the country to accommodate small industrial units in more congenial atmosphere where various common facilities are provided for their smooth working. On 31 March 1975, 12,380 small-scale units were working. They produced goods worth Rs 500 crores and provided employment to about 1,85,500 persons.

**Rural Industries Projects**

A centrally-sponsored scheme for rural industries project was taken up in 1962-63 Its main object is to evolve techniques for establishing viable industrial units in rather inhospitable rural environments Another aim is to reduce the disparities in the levels of development among different regions, and provide gainful employment opportunities To start with, 45 areas were selected in the states and some union territories each covering three to five development blocks with a population of 3 to 5 lakhs for intensive development of small industries in rural areas Nine more areas were added later More than 63,578 industrial units had been set up up to 31 March 1976 with an investment of Rs 303 crores. The value of production during 1975-76 was about Rs 385 26 crores These provided employment to 5,40,436 persons.

The programme is in operation in 111 districts including 57 districts covered under the programme in the Fifth Plan. The strategy of the programmes for the development of small industries in the Fifth Plan is designed to facilitate the creation of opportunities for fuller and additional productive employment The programmes are re-

oriented to increase the production of some essential commodities for mass consumption

HANDLOOMS AND POWER-LOOMS

The handloom industry ranks in importance next only to agriculture in employment potential There are about 38 lakh handlooms, of which 12.7 lakhs are in the co-operative sector. About 90 lakh persons depend on this industry for their livelihood. Powerloom industry is of recent growth. There were three lakh power operated looms in the country as on 31 December 1974.

A target of 480 crore metres—300 crore metres for handlooms and 180 crore metres for powerlooms—has been fixed for the Fifth Plan period. This amounts to about 50 per cent of the total requirement of cloth in the country.

The handloom industry has achieved an important position in exports, which increased from Rs 11 60 crores in 1967-68 to about Rs 200 crores in 1976-77

Development of handloom sector has been given a prominent place in the new economic programme A comprehensive progremme for its all-round development is being undertaken and a Development Commissioner has been appointed. Some states have constituted Handloom Development Corporations

HANDICRAFTS

Handicrafts include a large number of crafts which are backed by centuries of experience and skill The present production of handicrafts (including gem and jewellery) is Rs 400 crores and is expected to reach Rs 600 crores by the end of the Fifth Five Year Plan. As a result of the various development and export promotion efforts, exports picked up from Rs 22 18 crores in 1967-68 to about Rs 162.18 crores in 1976-77. A target of Rs 195 crores has been fixed for the 1977-78

In addition to its contribution to exports, the handicrafts sector employs 14 lakh workers The number is expected to reach 18 lakh by the end of the Fifth Plan To promote the development of handicrafts, an allocation of Rs 18.72 crores has been made in the central sector for the Fifth Plan, of which Rs 2.80 crores have been provided for 1976-77.

To increase the production and exports of handicrafts, an All India Handicrafts Board was set up in New Delhi in 1952 It has five regional offices at Bombay, Calcutta, Lucknow, Madras and New Delhi A Central Handicrafts Development Centre at Bangalore and a Central Crafts Museum at Delhi have also been set up by the Board For marketing of handicrafts, about 250 emporia have been set up all over India by the central and state governments and administrations of union territories

COIR

The Coir industry is essentially a cottage industry It employs about 5 lakh people directly. Of the estimated annual production of 1.55 lakh tonnes of coir yarn, more than 90 per cent is produced in Kerala. The value of exports of coir yarn and products has steadily increased from Rs 8 7 crores in 1960-61 to Rs 15 5 crores in 1973-74 and Rs 19 4 crores in 1975-76.

The Coir Board, set up by the central government as a statutory organisation, promotes the development of coir industry.

SILK

About 30 lakh kg of all varieties of natural silk valued at about Rs 50

crores at current market price are produced annually in the country. Nearly two-thirds of this is produced in Karnataka, followed in order of production by West Bengal, Assam, Bihar, Madhya Pradesh and Jammu and Kashmir. There are about 1.25 lakh handlooms and about 3,800 powerlooms engaged in the production of natural silk weaving. The number of persons to whom sericulture provides part or full-time employment is over 35 lakhs Export earnings for 1976-77 amounted to Rs 22 crores.

The Central Silk Board, established in 1949, is responsible for the development of silk and sericulture industry and co-ordinates research.

KHADI AND VILLAGE INDUSTRIES

Khadi and village industries generally process local raw materials and mainly cater to the requirements of the local population. Some of the important industries under this category are Khadi (cotton, woollen silk), the processing of cereals and pulses, village oil, cane-gur and khandsari, palm-gur, non-edible oils and soap, bee-keeping, handmade paper, village pottery, gobar gas, carpentry and blacksmithy. The Khadi and Village Industries Commission set up in April 1957, is responsible for the development of these industries It provides financial and other assistance to registered institutions and co-operative societies, State Khadi and Village Industries Boards and 23 other village industries which come within its purview. The Commission disbursed Rs 27 76 crores to various agencies implementing its programmes in 1975-76.

The development programme of the Khadi and village industries in 1975-76 showed improvement over last year, both in production and employment Production was worth Rs 195.21 crores in 1975-76 Of this, Khadi accounted for 47 crores and Village industries Rs 148.5 crores

During 1975-76 these industries provided employment to 19 45 lakh persons. Of the total employment, Khadi accounted for 8.24 lakhs and village industries 11 21 lakhs.

# 19 COMMERCE

## EXTERNAL TRADE

Until 1947 India had a pattern of trade which was traditionally that of a colonial and agricultural country. The bulk of her foreign trade was confined to Britain and other Commonwealth countries. While exports were based on a few primary commodities, imports were restricted and consisted mainly of manufactured articles. Though, on the surface, there was a favourable balance of trade, it concealed a low level of industrial production and economic development.

With the impressive industiral development since Independence, India's foreign trade has undergone a complete metamorphosis and is no longer confined to a few countries trading in a few commodities. She, now, has trading links with practically all the countries of the world The items on the exports list today number about three thousand as against fifty at the time of Independence.

Similarly, there has been a great increase in imports on account of the development needs of the economy. The composition of imports has, naturally, undergone a great change. The bulk of the imports now consists of sophisticated machines, scarce raw materials, lubricants and oils and fertilizers which are essential for the country's industrial and agricultural development. The country has had an adverse balance of trade mainly on account of heavy imports necessary for its development.

**VALUE OF FOREIGN TRADE**

The total value of foreign trade (imports plus exports including re-exports) during 1976-77 was Rs 10,217 crores as compared to Rs 9,308 crores in 1975-76. The value of imports and exports, the total value of foreign trade and the balance of trade for selected years since 1950-51 are given in table 19.1.

TABLE 19.1 FOREIGN TRADE OF INDIA

(*Rs crores*)

| Year | Imports | Exports (including re-exports | Total value of foreign trade | Balance of trade |
|---|---|---|---|---|
| 1950-51 | 650 21 | 600 64 | 1,250 85 | —49 57 |
| 1960-61 | 1,139 69 | 660 22 | 1,799 91 | —479 47 |
| 1965-66 | 1,408 53 | 805 64 | 2,214 17 | —602 89 |
| 1970-71 | 1,634 20 | 1,535 ·16 | 3,169 36 | —99 ·04 |
| 1973-74 | 2,955 37 | 2,523 40 | 5,478 77 | —432 97 |
| 1974-75 | 4,518 78 | 3,328 83 | 7,847 61 | —1,189 95 |
| 1975-76 | 5,265 20 | 4,042 81 | 9,308 01 | —1,222 ·39 |
| 1976-77 | 5,073 79 | 5,143 23 | 10,217 02 | +69,44 |
| 1977-78[1] | 2,415 73 | 2,584 66 | 5,000 ·39 | +168 93 |

[1] Provisional (April-September)

The adverse balance of trade, which had been widening since 1956 owing to an increase in imports needed to meet the requirements of development and a relatively slower growth of exports, showed a generally upward tendency till 1966-67. This trend was reversed in 1967-68, and in the subsequent years up to 1970-71 there was a sharp

decline in the country's trade deficit. But again there was a substantial increase in imports during 1971-72 resulting in a fairly heavy deficit in the balance of trade that year. In 1972-73, however, as a result of an appreciable increase in exports, the balance of trade turned into a favourable one for the first time during the last 25 years. During 1973-74, exports increased by 28 per cent but imports also went up by 58 per cent resulting in an adverse balance of trade amounting to Rs 432 crores. Trade deficit during 1974-75 further widened to Rs 1,190 crores when exports increased by 31.9 per cent and imports by 54.5 per cent. In 1975-76, the trade deficit at Rs 1,222 crores was slightly higher. There were difficult trading conditions in the international markets mainly due to the recession in developed countries.

India's overall exports including reexports during the first half of 1977-78 amounted to Rs 2,585 crores showing an increase of about 11 per cent over the exports of the corresponding period of the previous year. Whereas imports stood at Rs 2,415.7 crores resulting in a surplus of about Rs 169 crores.

PATTERN OF TRADE

Exports, which had been more or less stagnant during the decade 1951-60, averaging a little over Rs 600 crores per annum, started increasing between 1961 and 1966. On 31 March 1966, exports stood at about Rs 806 crores. There has been an impressive increase in exports since then In 1976-77, exports totalled Rs 5,143 crores.

EXPORTS

The exports have not only gone up but also witnessed an increasing diversification in recent years. The increase has been well spread over a number of commodities. Among the important items, exports of cotton manufactures went up from Rs 48.2 crores in 1961-62 to Rs 603 00 crores in 1976-77, iron ore and concentrates from Rs 17.4 crores to Rs 238 crores, unmanufactured tobacco from Rs 14.0 crores to Rs 97.0 crores and iron and steel from Rs 10.0 crores to Rs 283 crores. Export of jute manufactures were at the level of Rs 225.5 crores in 1973-74 increased to Rs 294.0 crores in 1974-75 and then declined to 245 9 crores in 1975-76 and further to Rs 201 crores in 1976-77. However, exports of tea which reached an all time high of Rs 180 crores in 1967-68 witnessed a declining trend up to 1973-74, but it picked up in 1974-75 and reached the high level of Rs 293 crores in 1976-77. Among the other important items which showed marked improvement in 1976-77 over 1975-76 are engineering goods (Rs 141 crores) and handicrafts (Rs 150 crores). Table 19.2 gives the principal items of exports for 1950-51, 1965-66, 1970-71 and 1973-74 onwards.

The items which registered decline in 1976-77 were sugar (Rs 324 crores) jute manufactures (Rs 50 crores), and silver (Rs 37 crores)

*Jute Manufactures*

A brief review covering some of the important items is given below: During the past few years, exports of Indian jute goods have been losing ground in the world markets primarily due to keen competition from synthetic substitutes and supplies from Bangladesh During 1976-77 exports of jute goods declined to Rs 200.1 crores from Rs 250 crores during the preceding year.

A jute Corporation was set up in 1971 to stabilise price of jute at remunerative levels and to market jute goods abroad.

TABLE 19 2

EXPORTS OF PRINCIPAL COMMODITIES (BY SEA, AIR AND LAND)

(*Rs lakhs*)

| Commodity | 1950-51 | 1965-66 | 1970-71 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|---|---|---|---|---|---|---|
| Jute manufactures (excluding twist and yarn) | 11,277 | 18,162 | 18,917 | 22,573 | 29,403 | 25,089 | 20,083 |
| Tea | 7,989 | 11,484 | 14,825 | 14,603 | 22,806 | 23,691 | 29,287 |
| Cotton manufactures (excluding twist and yarn) | 11,944 | 6,329 | 9,747 | 23,989 | 21,511 | 21,618 | 33,124 |
| Textile fabrics (other than cotton and jute) | 461 | 742 | 1,213 | 3,684 | 2,683 | 2,475 | 3,933 |
| Textile articles (other than cotton and jute mfrs, woollen carpets, carpeting floor rugs and mattings) | 837 | 458 | 720 | 1,071 | 1,460 | 1,506 | 3,666 |
| Textile yarn and thread | 2,564 | 1,507 | 3,448 | 3,049 | 3,763 | 2,281 | 5,447 |
| Ores of non-ferrous base metals and concentrates | — | 1,154 | 1,749 | 1,999 | 3,044 | 4,394 | 4,948 |
| Leather | 2,577 | 2,821 | 7,159 | 16,657 | 13,388 | 20,148 | 26,349 |
| Raw cotton (excluding linters and waste) | 494 | 1,039 | 1,395 | 3,242 | 1,522 | 4,134 | 2,699 |
| Fresh fruits and nuts (excluding oilnuts) | 1,095 | 2,924 | 5,441 | 7,898 | 12,113 | 10,244 | 11,515 |
| Crude vegetables materials, inedible | 1,361 | 1,678 | 3,402 | 5,844 | 8,953 | 7,162 | 8,390 |
| Raw wool | 787 | 643 | 411 | 704 | 657 | 358 | 647 |
| Sugar (including molasses) | 17 | 1,119 | 2,930 | 4,259 | 33,933 | 47,233 | 14,812 |
| Iron ore and concentrates | 22 | 4,237 | 11,728 | 13,287 | 16,039 | 21,393 | 23,849 |
| Tobacco, unmanufacutred | 1,411 | 1,957 | 3,140 | 6,841 | 8,036 | 9,313 | 9,662 |
| Vegetable oils (non-essential) | 2,526 | 409 | 703 | 3,165 | 3,366 | 3,526 | 4,858 |
| Crude minerals (excluding coal, petroleum, fertilizer materials and precious stones) | — | 1,461 | 2,230 | 2,153 | 3,335 | 3,068 | 4,188 |
| Woollen carpets, carpeting floor rugs and mattings | 556 | 448 | 996 | 2,406 | 3,365 | 4,946 | 4,523 |
| Iron and steel | 287 | 1,238 | 6,720 | 2,618 | 2,106 | 6,801 | 28,299 |
| Coffee | 135 | 1,294 | 2,511 | 4,601 | 5,136 | 6,665 | 11,405 |
| Hides and skins, undressed | 956 | 945 | 377 | 138 | 29 | 19 | 79 |
| Petroleum products | 3 | 646 | 856 | 1,225 | 1,363 | 1,999 | 1,836 |
| Coal, coke and briquettes | 336 | 286 | 401 | 309 | 680 | 1,705 | 1,434 |
| TOTAL (including other items) | 60,064 | 80,564 | 1,53,516 | 2,52,340 | 3,32,883 | 4,04,281 | 5,14,323 |

*Tea* Exports of tea in 1976-77 increased to Rs 293 crores from Rs 237 crores in the preceding year. In terms of quantity tea exports increased to 24.3 crores kg in 1976-77 from 21.2 crore kg in 1975-76. Thus in 1976-77 the unit value realisation from tea showed appreciation.

A Tea Trading Corporation was set up in 1971 to promote exports of packaged tea

*Cotton Textiles* Exports of cotton textiles are subject to quantitative restrictions imposed by a number of industrial countries. This has restricted the scope for increase in exports. Unilateral action by European Economic Community to restrict import of cotton textiles would affect out exports seriously. However, dismantling of quota restrictions by USA on handloom garments is an encouraging development in our favour.

During 1976-77 exports of cotton goods (mill-made) at Rs 200.8 crores showed an increase of Rs 79 0 crores compared with the preceding year.

Exports of cotton yarn at Rs 36 crores were also higher by Rs 25 crores compared to the preceding year. Exports of cotton apparel at Rs 257 crores were higher by Rs 111 crores compared to the preceding year. Similarly exports of handloom piecegoods improved from Rs 40 0 crores to Rs 53.2 crores.

*Unmanufactured Tobacco* The increasing trend in the exports of unmanufactured tobacco continued during 1976-77. Exports improved from Rs 3.5 crores to Rs 96.6 crores between 1970 and 1976.

A Tobacco Marketing Board is being set up to deal with the problems of production and marketing of flue-cured tobacco.

*Fruits, vegetables and pulses* Exports of fruits, vegetables and pulses during 1976-77 amounting to Rs 161 crores were higher by Rs 26 crores compared with the preceding year. The main item under this group is cashew kernels, exports of which amounted to Rs 106 crores as compared to Rs 96 crores in the preceding year registering an increase of Rs 10 00 crores.

*Engineering Goods* Exports of engineering goods increased to Rs 554 crores in 1976-77 as against Rs 413 crores in 1975-76. The range of engineering goods exported not only showed a fair measure of diversification and specialisation but some of the products also found their way to developed countries.

*Iron Ore* Exports of iron ore increased substantially in terms of value but marginally in terms of quantity. They amounted to 235 lakh tonnes valued at Rs 239 crores in 1976-77 as against 227 lakh tonnes valued at Rs 214 4 crores in 1975-76.

*Iron and Steel* Exports of iron and steel during 1976-77 were valued at Rs 283 crores recording a substantial increase of Rs 215 crores over the preceding year.

*Fish* Exports of fish at Rs 180 crores in 1976-77 recorded an increase of Rs 53 crores over the previous year. The unit value realised from the exports of fish also registered an increase It was Rs 30,655 per tonne during 1976-77 as against Rs 24,340 per tonne during the previous year.

*Coffee*

Exports of coffee in 1976-77 at Rs 114 crores registered an increase of Rs 48 crores over the previous year. The increase was due to a rise in the unit value realised. India's exports of coffee till recently were regulated in terms of the International Coffee Agreement to which she is a signatory. This restricted the scope for increasing the exports to the traditional markets. From 1 October 1973 the operation of the quota and price clauses of the Agreement had been suspended. The Coffee Board has undertaken a programme to popularise the use of coffee in non-traditional markets.

*Leather and Leather Manufactures*

Exports of leather and leather manufactures (excluding footwear) at Rs 264 crores during 1976-77 recorded an increase of Rs 62 crores over the preceding year.

*Oil Cakes*

Export of oil cakes at Rs 224 crores increased from the level of Rs 96 0 crores in 1975-76. The unit value realised during this period also increased from Rs 881 to Rs 1,296 per tonne in 1976-77.

*Handicrafts*

Exports of gems, precious and semi-precious stones (unworked and worked) improved from Rs 156.5 crores in 1975-76 to Rs 251.4 crores during 1976-77. This increase was due to favourable market conditions abroad, particularly in the USA An appreciable increase was also recorded in the exports of handmade carpets and druggets. Moderate increases were recorded in the exports of metal artware, handprinted textiles, shawls, scarves and lohis of all fibres.

IMPORTS

Table 19.3 gives principal imports with value. for the years 1950-51, 1965-66, 1970-71 and 1972-73 onwards

The rising trend in imports was reversed in 1967-68 and imports thereafter continued to decline till 1969-70. The decline was mainly in imports of foodgrains, because of better domestic crop In some other imports, the decline was due to indigenous substitution, shortage of foreign exchange and slackness in domestic demand There was, however, a sharp increase in imports during 1974-75 and 1975-76 mainly due to larger imports of food, fuel and fertilizers. But again in 1976-77, there was a decline in imports

*Imports in 1976-77*

Imports during 1976-77 declined to Rs 5,074 crores from Rs 5,265 crores during the preceding corresponding period of last year showing a decline of Rs 191 crores The decline in imports was due mainly to lower imports of cereals and cereal preparations, steel, fruits and nuts

DIRECTION OF TRADE

The principal countries from which India imported and the value of imports from each of these countries for the years 1950-51, 1965-66, 1970-71 and 1972-73 onwards are shown in table 19 4.

Imports

The table shows that over the years USA has been the largest supplier. mainly because of imports of foodgrains and other items under aid and grants But due to decline in imports of foodgrains by India. the USA was relegated to the second position in 1972-73. But again from 1973-74 it regained its position with Iran occupying the second place There was also an appreciable increase in imports from USSR. Japan, Belgium, West Germany, Italy and Saudi Arabia during the period.

TABLE 19.3

IMPORTS OF PRINCIPAL COMMODITIES (BY SEA, AIR AND LAND)

(Rs lakhs)

| Commodity | 1950-51 | 1965-66 | 1970-71 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|---|---|---|---|---|---|---|---|
| Iron and Steel | 1,431 | 9,800 | 14,704 | 22,581 | 24,946 | 41,728 | 31,190 | 21,973 |
| Machinery other than electric | 6,676 | 32,244 | 25,781 | 29,793 | 42,664 | 39,675 | 57 667 | 65,873 |
| Petroleum products | 5,427 | 3,335 | 2,999 | 5,921 | 14,319 | 20,205 | 17,390 | 26,045 |
| Transport equipment | 3,493 | 7,055 | 6,655 | 10,012 | 9,497 | 12,290 | 15,713 | 14,740 |
| Electric machinery and appliances | 2,191 | 8,780 | 7,035 | 13402 | 12,998 | 15,013 | 20,078 | 17,301 |
| Raw cotton | 10,007 | 4,621 | 9,883 | 9,088 | 5,205 | 2,667 | 2,822 | 12,946 |
| Wheat, unmilled | 9,921 | 26,473 | 17,337 | 4,816 | 34,610 | 69,818 | 1,21,055 | 80,710 |
| Petroleum, crude and partly refined | na | 3,487 | 10,590 | 14,483 | 41,709 | 95,490 | 1,05,280 | 1,15,162 |
| Chemical elements and compounds | 917 | 3,586 | 6,798 | 9,138 | 10,966 | 17,882 | 18,020 | 13,721 |
| Manufactures of metals | 1,394 | 1,817 | 928 | 1,879 | 2,189 | 2,726 | 3,314 | 2,872 |
| Textile yarn and thread | 1,503 | 592 | 441 | 330 | 348 | 999 | 1,013 | 423 |
| Copper | 849 | 3,337 | 6,020 | 5,190 | 7,083 | 7,299 | 2,184 | 4,616 |
| Zinc | 656 | 1,284 | 2,197 | 2,286 | 2,772 | 5,536 | 2,131 | 3,560 |
| Rice | 5,349 | 4,190 | 2,982 | 1,071 | 645 | 1,217 | 4,658 | 4,598 |
| Medicinal and pharmaceutical products | 997 | 873 | 2,427 | 2,322 | 2,643 | 3,406 | 3,626 | 4,214 |
| Fresh fruits and nuts | 951 | 1,886 | 3,582 | 4,068 | 3,640 | 4,717 | 4,202 | 2,849 |
| Raw wool and hair | 562 | 512 | 1,607 | 1,188 | 2,095 | 2,748 | 2,592 | 2,798 |
| Paper and paper-board | 1,014 | 1,323 | 2,484 | 3,104 | 2,892 | 5,843 | 5,661 | 6,114 |
| Oilseeds, nuts and kernels | 229 | 881 | 636 | 1,232 | 737 | 1,007 | 785 | 330 |
| Coal-tar, dyestuffs and natural indigo | 1,198 | 375 | 416 | 324 | 377 | 318 | 394 | 497 |
| Aluminium | 238 | 629 | 335 | 287 | 287 | 299 | 995 | 231 |
| Milk and cream, dried or condensed | 356 | 664 | 704 | 1,794 | 1,499 | 1,825 | 2,036 | 3,099 |
| Raw jute and waste | 7 | 916 | 14 | 113 | 1,222 | 375 | 333 | 676 |
| Vegetable oils | 334 | 711 | 2,308 | 1,550 | 5,694 | 1,230 | 1,419 | 10,061 |
| TOTAL (including other items) | 65,021 | 1,40,853 | 1,63,420 | 1,86,744 | 2,95,537 | 4,51,993 | 5,26,520 | 5,07,379 |

na = not available

TABLE 19.4

IMPORTS FROM PRINCIPAL COUNTRIES (BY SEA, AIR AND LAND)

(Rs lakhs)

| Country | 1950-51 | 1965-66 | 1970-71 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|---|---|---|---|---|---|---|---|
| USA | 11,916 | 53,483 | 45,295 | 23,487 | 49,843 | 72,909 | 1,28,522 | 1,05,553 |
| UK | 13,531 | 15,009 | 12,676 | 23,725 | 25,217 | 21,340 | 28,400 | 32,129 |
| Germany (west) | — | 13,714 | 10,747 | 17,258 | 20,579 | 30,687 | 36,996 | 30,564 |
| Iran | 3,700 | 3,408 | 9,164 | 12,198 | 26,758 | 47,266 | 45,988 | 50,787 |
| Japan | 1,011 | 7,933 | 8,343 | 17,853 | 25,953 | 45,347 | 36,118 | 29,705 |
| Italy | 1,626 | 1,986 | 2,886 | 3,594 | 4,940 | 7,838 | 8,483 | 5,744 |
| France | 1,107 | 1,805 | 2,134 | 3,935 | 7,029 | 8,116 | 19,653 | 14,021 |
| USSR | 23 | 8,317 | 10,613 | 11,437 | 25,473 | 40,249 | 30,978 | 30,724 |
| Belgium | 922 | 1,151 | 1,151 | 5,104 | 6,571 | 10,190 | 8,649 | 5,710 |
| Switzerland | 761 | 1,451 | 1,157 | 1,165 | 1,695 | 3,652 | 5,541 | 4,904 |
| Australia | 3,345 | 2,418 | 3,658 | 13,385 | 4,381 | 11,848 | 10,167 | 24,957 |
| Malaysia[1] | 81 | 1,277 | 575 | 842 | 3,209 | 1,120 | 11,458 | 3,393 |
| Saudi Arabia | 87 | 866 | 2,417 | 4,484 | 13,135 | 29,765 | 29,013 | 33,198 |
| Canada | 2,190 | 3,152 | 11,723 | 10,761 | 11,586 | 13,042 | 23,201 | 12,940 |
| Czechoslovakia | 277 | 2,115 | 2,020 | 1,591 | 2,671 | 3,331 | 5,301 | 3,413 |
| Bangladesh | — | — | — | 346 | 1,704 | 918 | 465 | 607 |
| Burma | 1,880 | 972 | 964 | 205 | 7 | 1 | 263 | 55 |
| Netherlands | 726 | 1,977 | 1,909 | 3,669 | 5,656 | 4,759 | 6,383 | 6,522 |
| Singapore | 1,608 | — | 117 | 283 | 972 | 722 | 1,166 | 879 |
| Sweden | 529 | 1,063 | 980 | 1,893 | 2,393 | 2,599 | 6,847 | 3,575 |
| Egypt | 3,287 | 1,995 | 3,984 | 2,887 | 2,590 | 2,283 | 1,899 | 2,115 |
| Kenya | 1,852 | 456 | 969 | 632 | 1,743 | 983 | 877 | 700 |
| Sudan | 749 | 574 | 2,094 | 4,580 | 2,193 | 503 | 364 | 1,904 |
| Total (Including other countries) | 65,021 | 1,40,853 | 1,63,420 | 1,86,744 | 2,95,537 | 4,51,993 | 5,26,520 | 5,07,379 |

[1]Figures for 1965-66 relate to Malaysia including Singapore.

**Exports**

UK and USA continued to be India's principal buyers until 1968-69. Since 1969-70, USSR and Japan are also among the principal buyers. During 1968-69, the share of UK and USA in India's exports was 14.8 and 17.2 per cent respectively. But in 1976-77 they accounted for 10.2 and 11.0 per cent respectively. However, in 1976-77 USA was the largest buyer with a share of 11.0 per cent in the total exports followed by Japan (10.9 per cent), and UK (10.2 per cent, USSR 8.8 per cent). Other important buyers were France, Germany (West), Italy, Netherlands, Bangladesh, Singapore, Poland, Switzerland, Iraq, UAR, Indonesia and Iran.

The principal countries to which India exported and the value of exports to each one of these countries for the years 1950-51, 1965-66, 1970-71 and 1972-73 onwards are given in table 19.5. A study of these figures reveal an increasing diversification in the direction of export trade. India's exports to the East European countries rose from Rs 63 crores in 1961-62 to Rs 770 crores in 1976-77.

**TRADE POLICY**

The trade policy is governed by the terms of the Export Policy Resolution presented to Parliament in July 1970. It has laid down guidelines for the realisation of the country's objective for expanding export earnings at a high rate. In keeping with this policy, the Government of India promotes necessary investments to increase production capacity for exports so that the surpluses required for the long-term growth of exports are guaranteed in increasing quantities.

Provision has also been made, under the Industrial Licensing Policy, for expansion of industrial output especially for exports. To deal with problems connected with production, generation of surpluses and the development of markets abroad for different manufactures and commodities, a separate Department of Export Production has been created in the Ministry of Commerce. A Secretariat for Industrial Approvals has been set up in the Department of Industrial Development for expeditious disposal of applications for giving preferential allocations of foreign exchange for import of capital goods by export-oriented units as well as for assisting units which put forward attractive phased export programmes.

Public sector trading agencies are being geared up for canalising increasing sectors of import and export trade to take advantage of bulk purchases and to assure industry of the raw materials required for sustaining production, at the same time bringing down the level of inventories required in the country, to push the exports of new and difficult items to new markets and to organise exports on a more rational basis Sales organisations and techniques, are also being re-oriented. In the public sector, the need for growing specialisation has been recognised by setting up special corporations to handle the specialised trade in items, such as cotton textiles, marine products, tobacco, cashew, complete projects and equipment

The import policy of the government is so designed as to further develop foreign trade of the country on a rational basis It is calculated to bring in an increasing amount of the import trade under the ambit of state trading agencies, give further fillip to export production, streamline procedures, encourage the setting up of small-scale industries and assist professional and technical people in their vocations by giving them necessary import facilities for their professional and technical work.

To offset the repercussions on India's balance of payments position

TABLE 19.5

EXPORTS TO PRINCIPAL COUNTRIES

(Rs lakhs)

| Country | 1950-51 | 1965-66 | 1970-71 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|---|---|---|---|---|---|---|---|
| UK | 13,982 | 14,478 | 17,044 | 17,253 | 26,314 | 31,226 | 42,132 | 51,012 |
| USA | 11,588 | 14,698 | 20,734 | 27,574 | 34,592 | 37,493 | 51,998 | 54,958 |
| USSR | 138 | 9,289 | 20,985 | 30,482 | 28,602 | 42,135 | 41,669 | 44,039 |
| Japan | 1,027 | 5,705 | 20,348 | 21,716 | 35,875 | 29,665 | 43,276 | 54,024 |
| Australia | 2,971 | 1,749 | 3,446 | 2,598 | 5,078 | 6,141 | 4,821 | 6,470 |
| Sri Lanka | 1,968 | 1,279 | 3,182 | 801 | 984 | 2,685 | 2,311 | 3,903 |
| Germany (West) | — | 1,797 | 3,231 | 6,228 | 8,679 | 10,617 | 11,791 | 22,434 |
| Canada | 1,379 | 2,027 | 2,796 | 2,820 | 3,109 | 4,418 | 4,580 | 4,870 |
| Burma | 2,446 | 357 | 1,403 | 436 | 154 | 465 | 928 | 3,903 |
| Egypt | 587 | 2,705 | 5,637 | 3,172 | 1,488 | 5,255 | 10,013 | 9,078 |
| France | 910 | 1,103 | 1,798 | 4,590 | 4,970 | 8,632 | 8,622 | 16,182 |
| Argentina | 1,065 | 415 | 334 | 77 | 642 | 1,063 | 398 | 229 |
| Sudan | 418 | 817 | 3,827 | 2,071 | 1,859 | 6,646 | 3,652 | 5,115 |
| Malaysia[1] | 550 | 1,259 | 1,173 | 934 | 2,463 | 2,926 | 3,285 | 2,984 |
| Singapore | 3,068 | — | 1,763 | 1,784 | 4,354 | 3,679 | 5,305 | 5782 |
| Netherlands | 1,016 | 791 | 1,398 | 3,540 | 7,334 | 7,175 | 8,223 | 13,570 |
| Czechoslovakia | 1,008 | 1,593 | 2,946 | 4,610 | 4,379 | 6,038 | 3,471 | 4,320 |
| Kenya | 641 | 486 | 787 | 550 | 1,028 | 1,540 | 1,572 | 1,753 |
| Italy | 1,500 | 939 | 1,401 | 4,885 | 6,935 | 5,243 | 8,002 | 11,669 |
| Nigeria | 462 | 400 | 862 | 965 | 1,149 | 2,161 | 3,755 | 2,499 |
| Cuba | — | 29 | 16 | 1 | — | — | — | — |
| New Zealand | 367 | 657 | 597 | 825 | 1,355 | 2,074 | 1,290 | 1,299 |
| Bangladesh | — | — | — | 16,824 | 5,878 | 4,220 | 6,219 | 5,457 |
| Indonesia | 42 | 82 | 410 | 530 | 2,678 | 5,096 | 5,172 | 6,066 |
| TOTAL (including other countries) | 60,064 | 80,564 | 1,53,516 | 1,97,083 | 2,52,340 | 3,32,883 | 4,04,281 | 5,14,323 |

1. Figures for 1965-66 relate to Malaysia including Singapore

*Note* The export figures from November 1970 onwards are based on the original copy of the shipping bill after an adjustment made for short and shut out shipment returns received during the period As such these are not comparable to the export figures for a period prior to October 1970 which were based on the finally passed shipping bills

arising from the recent oil crisis and the steep escalation of world prices of India's crucial import items, such as, steel non-ferrous metals, fertilizers and newsprint, efforts to maximise export earnings from all directions have been reinforced with special programmes for promoting exports to the expanding markets of the oil exporting countries.

## EXPORT PROMOTION

To impart dynamism to the country's efforts to expand and diversify the exports, a series of measures have been put into operation. These cover export assistance and incentives, transport facilities, training in market research, rationalisation of institutional arrangements and technical services including some with the help of UN agencies and friendly countries and establishment of joint ventures abroad. Other facilities provided include release of foreign exchange for specified purposes, import replenishment, priority in allotment of scarce raw materials, in some cases at concessional prices, drawback of import and excise duties and other general and specific reliefs in line with international trade practices.

The government and the Reserve Bank have taken measures from time to time to facilitate credit for exporters at reasonable interest. Exporters can obtain both pre-shipment and post-shipment advances from commercial banks at concessional rate of interest. The Industrial Development Bank of India makes advances to exporters of capital goods and machinery in association with commercial banks.

To help exporters meet the competition in foreign markets, develop marketing competence and neutralise the disadvantages inherent in the present stage of the development of the economy, a scheme has been put in force under which cash compensatory support is offered on the exports of selected non-traditional industrial products with substantial export possibilities.

### Organisations

The Government of India has established several specialised organisations for export promotion The more important of these are briefly described below :

The *Board of Trade,* which was set up in 1962, deals mainly with the problems and policies relating to the development of the country's foreign trade. From time to time it makes recommendations to the central government on such matters as (i) expansion of production; (ii) product development; (iii) improvements in export marketing mechanism and media; and (iv) provision of commercial services to the commercial community with regard to export programmes

The *Trade Development Authority,* New Delhi, has been established to induce and organise entrepreneurs, largely in the medium and small scale, to develop their individual export capabilities

The *Federation of Indian Export Organisations,* New Delhi, co-ordinates and supplements the export promotional activities of various organisations and institutions such as, Export Promotion Councils, Commodity Boards, Chambers of Commerce, trade associations and other specialised bodies During 1975-76, the government announced a scheme for providing financial assistance to the consultancy firms registered with the FIEO to explore avenues available, abroad for promotional activities in export business.

*Export Promotion Councils* aim at securing the co-operation of consumers, producers and exporters in the country for export promotion The Councils perform both advisory and executive functions. During 1974-75, 17 such Councils were functioning.

*Commodity Boards* are statutory bodies and are responsible for production, development and export of certain commodities. At present, six such Boards are in existence dealing with tea, coffee, cardamom, rubber, coir and silk (see also chapter 'Industry')

Besides Export Promotion Councils and Commodity Boards there are recognised Export Houses which specialise in export trade. The export house scheme has been revised during the current year 1976-77. According to the present scheme export house certificates are issued to those exporters who fulfil the minimum prescribed requirements in terms of their export performance during the last three years. They are also required to fulfil prescribed requirements such as managerial capacity, adequate finances etc. Recognition certificates are issued by the office of the Chief Controller of Imports and Exports after close scrutiny of the performance of each applicant Recognised export houses are entitled to government assistance from the Marketing Development Fund for a wide range of their activities in addition to the benefits under the Registered Exporters' Policy.

The *Indian Institute of Packaging,* Bombay, established in 1966, undertakes research on raw materials for the packaging industry. It organises training programmes on packaging technology and consultancy services for the industry.

The *Indian Institute of Foreign Trade,* New Delhi, an autonomous organisation under the Societies Registration Act, is primarily concerned with developing training programmes, research and market studies

The *Export Inspection Council, Calcutta,* is a statutory body set up under the Export (Quality Control and Inspection) Act 1963 to adopt measures for the introduction and enforcement of quality control and compulsory pre-shipment inspection of various exportable commodities Quality control of textile goods and machinery is conducted by the Textiles Committee, set up under the Textiles Committee Act, 1963

The *Indian Council of Arbitration,* New Delhi, was set up in 1965 to promote arbitration for settling commercial disputes and to popularise arbitration among traders, particularly those engaged in international trade

A statutory board called the *Marine Products Export Development Authority* was set up in 1972 at Cochin for the development of the marine products industry with special reference to exports.

An *Export Processing Zone* has been set up at Santa Cruz, Bombay, to promote the export of electronic equipments and components It is entirely an export-oriented project and the units admitted to it will be obliged to export cent per cent of their production.

The *Handicrafts and Handlooms Export Corporation,* a subsidiary of the State Trading Corporation, and the Indian Motion Pictures Export Corporation are engaged in promoting exports in their respective fields

TRADE AGREEMENTS

*Trade Fair Authority of India* With a view to giving a new orientation to the country's trade promotion through fairs and exhibitions, an autonomous organisation, namely, Trade Fair Authority of India has been set up as a government company under section 25 of the Companies Act of 1956. It takes over the functions of the erstwhile directorate of exhibitions and commercial publicity, the Trade Fair Organisation and the Indian Council of Trade Fairs and Exhibitions The

Authority started functioning from 1 March 1977. It undertakes publicity for Indian goods by participating in International Trade Fairs and exclusive Indian exhibitions abroad. It also organises national fairs and exhibitions in India.

To forge close commercial relations, India has entered into trade agreements with a number of countries. From time to time, trade and economic delegations are also exchanged with other countries with a view to increasing and diversifying the flow of trade both in pattern and direction.

Long-term trade agreements with USSR and German Democratic Republic were signed on 15 April 1976, and 7 March 1977 respectively. The validity of the existing trade agreement with Hungary was extended for one more year.

Annual trade protocols for 1977 were concluded with all the East European countries during 1976-77. Long-term trade protocol with Poland covering the period 1977—80 was signed in New Delhi in October 1976

During the visit of the USSR Foreign Minister in April 1977, an agreement on import of crude oil from USSR and export of matching commodities in 1977 was signed. Similar agreement for supplies from both sides for coming three years 1978—80 was signed in Moscow in September 1977.

An Indian delegation led by commerce minister visited Australia in July/August 1976 and concluded a trade agreement between the two countries in regard to expansion of trade and economic collaboration.

Under a trade protocol signed in New Delhi in December 1974 between India and Bangladesh, it was agreed that payments in connection with trade between the two countries would be made freely convertible currency from 1 January 1975. No value ceilings were prescribed for total imports/exports from either country.

A trade agreement, signed with Pakistan in Islamabad in January 1975, provided for trade between the two countries through government controlled agencies/undertakings. In pursuance of the Indo-Pak talks held at Islamabad in May 1976 the private sector was also permitted to participate in Indo-Pak trade from 15 July 1976.

On 3 September 1975, a new Indo-Afghan trade agreement valid for three years, was signed in New Delhi and the entire trade between the two countries was brought under banking channels.

### PUBLIC SECTOR AGENCIES

For increasing State participation in the country's export and import trade, a number of public sector agencies has been set up. A brief description of some of the important agencies is given below :

*State Trading Corporation*

The State Trading Corporation of India Ltd. (STC), was registered in 1956 under the Indian Companies Act. Its main objective is to enlarge the scope of India's exports and to arrange for essential imports. Its activities are directed towards the diversification of exports, expansion of existing markets and development of new markets for traditional and non-traditional products It also often undertakes price support and buffer stock operations in certain commodities. The Corporation works in close co-operation with the government, the trade and industry

The STC group now includes STC, Cashew Corporation of India (CCI), Handicrafts and Handloom Exports Corporation (HHEC), Projects and Equipment Corporation (PEC), State Chemicals and

Pharmaceuticals Corporation (CPC) and Central Cottage Industries Export Corporation (CCIC). From a small beginning in 1956-57, when the turnover of STC group was Rs 9 2 crores, there has been a rapid growth in turnover to Rs 1,183 crores (provisional) in 1976-77

During 1976-77, the total exports of the STC were of the order of Rs 666 crores, imports Rs 301 crores and domestic trade worth Rs 8 crores

STC exports a wide range of products such as sugar, rice, coffee, tobacco, castor oil, leatherware, bulk commodities such as cement and salt, textiles and manufactured products

Though originally set up as an agency to handle trade with Eastern Europe, STC is now handling trade with other areas also Its export trade in 1976-77 comprised 18 per cent with Eastern Europe, 38 per cent with Western Europe and 21 per cent with the countries covered by the Economic and Social Council for Asia and the Pacific (ESCAP). In 1974-75, half of the increase in exports went to West Asia and a quarter to Africa

STC promotes exports of the products of small and medium scale industries through assistance in finance, quality control, raw materials and marketing

The Corporation arranges imports of raw materials required for the country's economic and industrial development Such imports include edible oil, raw wool, synthetic yarn, newsprint and many other items

STC maintains a network of offices at Beirut, Belgrade, Budapest, Buenos Aires, Colombo, Dacca, East Berlin, Frankfurt, Hongkong, Kuwait, London, Moscow, Nairobi, New York, Paris, Singapore, Sydney, Jeddah, Milan, Tokyo, Baghdad and Dar-es-Salam

*Projects and Equipment Corporation*

The Projects and Equipment Corporation of India Ltd, was formed in 1971 as a subsidiary of the STC consisting of the Engineering and Railway Equipment Divisions of STC

The main objectives of the Corporation are to boost the export of engineering, industrial and railways equipment, to penetrate new markets and to foster export ventures and turn-key projects.

During 1973-74, the turnover of the Corporation was Rs 18 5 crores. The turnover for 1975-76 is expected to be Rs 41 crores as against Rs 27 crores during 1974-75.

*Cashew Corporation of India*

Set up in 1970 as a subsidiary of the STC, the Cashew Corporation of India ensures steady supplies of imported raw cashewnuts at fair prices to the export-oriented cashew processing industry. During 1974-75, the turnover of the Corporation was Rs 39.2 crores. The first half of the 1977-78, the turnover amounted to Rs 17 crores. The Corporation has two offices, one in Paris and the other in New York, which carry out export publicity for Indian products

*Handicrafts and Handlooms Export Corporation*

The Handicrafts and Handlooms Export Corporation, a subsidiary of STC, promotes the export of Indian handloom and handicraft products and ready-to-wear garments, besides the canalised export of woollen knit-wear. During 1973-74, its total exports were Rs 20 5 crores, including knit-wear exports totalling Rs 14 crores as against Rs 5.65 crores in 1972-73. During 1976-77, exports of the Corporation amounted to Rs 44 crores as compared to Rs 32 56 crores in 1975-76

*Mineral and Metals Trading Corporation*

The Minerals and Metals Trading Corporation (MMTC) set up in 1963, is the premier international trading house in the public sector for expanding the exports of mineral ores from the country. The total trade turnover of the Corpration during 1976-77 was estimated to be about Rs 840 crores, exports amounting to Rs 198 64 crores and imports Rs 639.27 crores

*Mica Trading Corporation*

The Mica Trading Corporation of India Ltd., Patna, was incorporated in 1973 as a subsidiary of the MMTC to handle the mica trade exclusively. An important objective of the Corporation, which started functioning from June 1974, is to advise the small exporters on free participation in export trade which had hitherto been dominated and monopolised by a few big mine owners and exporters. Exports of MITCO were estimated at Rs 18.10 crores during 1976-77.

*State Chemical and Pharmaceuticals Corporation of India*

The State Chemical and Pharmaceuticals Corporation of India Ltd, was incorporated as a subsidiary of STC on 1 January 1976. It has been set up to provide specialised service to the industry. It will take over the trade in chemicals and drugs, hitherto handled by STC Its turnover during 1976-77 was Rs 98 crores.

*Central Cottage Industries Corporation of India*

The Central Cottage Industries Corporation of India Ltd., was incorporated as a subsidiary of HHEC on 4 February 1976. It took over the central cottage industries emporium on 1 April 1976.

## INTERNAL TRADE

The internal trade of India is many times larger than its external trade, owing to the vastness of the country, its varied climate and diverse natural resources.

The internal trade can be classified under five broad heads. These are . (i) rail-borne trade, (ii) river-borne trade, (iii) coasting trade, (iv) trade borne on other craft, and (v) trade by air. Complete and precise data about internal trade are not available because reliable statistics pertaining to items (iv) and (v) are not available.

Rail-and-River Borne Trade

Statistics of rail-and-river borne trade are based on the invoices of the railways and steamer companies Till March 1965, they were recorded on 'import' basis but since then they are being recorded on 'export' basis. For the purpose of these statistics India is divided into a number of trade blocks, roughly representing the states of the Indian union. The chief port towns of Bombay, Calcutta, Cochin and Madras are constituted as separate trade blocks. Similarly, the less important ports are grouped as 'other ports', each of which is treated as separate trade block.

Table 19.6 shows the movement of selected articles by rail and river between different trade blocks[1] for selected years between 1960-61

[1]Up to March 1962 India was divided into 29 trade blocks The number increased to 31 in April 1962, consequent on the bifurcation of Bombay State and further to 32 in April 1964 after the formation of the State of Nagaland The number went up to 34 in April 1967 after Haryana was formed and Chandigarh became a centrally-administered territory The Kandla Port was introduced as a new trade block in April 1975 Thus there are, now, 35 blocks

and 1974-75 The internal trade of each block is not included in these figures

TABLE 19.6 RAIL-AND-RIVER BORNE TRADE

('000 *quintals*)

| Commodity | 1960-61 | 1965-66 | 1972-73 | 1973-74 | 1974-75 |
|---|---|---|---|---|---|
| Coal and coke | 3,14,796 | 3,31,919 | 3,34,498 | 3,01,555 | 3,38,574 |
| Raw cotton | 3,719 | 3,143 | 4,097 | 3,195 | 3,541 |
| Cotton piecegoods | 2,643 | 2,563 | 1,110 | 910 | 786 |
| Rice (not in husk) | 22,283 | 16,898 | 23,428 | 22,774 | 20,707 |
| Wheat | 30,642 | 45,959 | 61,383 | 51,473 | 50,774 |
| Raw jute | 4,015 | 4,615 | 5,249 | 4,368 | 3,675 |
| Iron and steel products | 37,025 | 73,432 | 89,391 | 78,846 | 85,328 |
| Oilseeds | 9,509 | 7,796 | 9,266 | 7,278 | 7,429 |
| Salt | 13,539 | 20,860 | 24,585 | 21,057 | 27,151 |
| Sugar (excluding khandsari sugar) | 9,106 | 10,492 | 10,266 | 11,579 | 12,999 |

*Note* . The above statistics relate to quantities only as value figures are not recorded in the railway and steamer companies invoices Besides, the trade carried by only one steam company between three trade blocks was recorded from April 1960 to August 1965. The company suspended its river service from September 1965. Inland trade data for 1972-73 cover river-borne trade carried by the Inland Water Transport Corporation Limited Further, non-trade freight movements are also included because of the difficulty of isolating them

**Coasting Trade**

Coasting trade is recorded under two broad heads, (i) internal trade, *i e ,* trade amongst the ports within the same maritime block, and (ii) external trade, i e , trade between one maritime block on the one hand and all other maritime blocks on the other Table 19.7 shows the value of coast-wise trade of India in selected years since 1960-61.

TABLE 19.7 COAST-WISE TRADE

(Rs lakhs)

| | 1960-61 | 1970-71 | 1971-72 | 1972-73 | 1974-75 | 1975-76 |
|---|---|---|---|---|---|---|
| Imports | | | | | | |
| Indian merchandise | 17,105 | 11,299 | 12,463 | 12,124 | 15,966 | 10,262 |
| Foreign merchandise[1] | 361 | — | — | — | — | — |
| Treasure | — | — | — | — | — | — |
| Total Imports | 17,466 | 11,299 | 12,463 | 12 124 | 15,966 | 10,262 |
| Exports | | | | | | |
| Indian merchandise[1] | 17,683 | 11,299 | 12,463 | 12,124 | 15,966 | 10,262 |
| Foreign merchandise[1] | 442 | | — | — | — | — |
| Treasure | — | — | — | — | — | — |
| Total Exports | 18,125 | 11,299 | 12,463 | 12,124 | 15,966 | 10,262 |
| TOTAL TRADE | 35,591 | 22,598 | 24,926 | 24,248 | 31,932 | 20,524 |

[1]The distinction between Indian and foreign merchandise was abolished from April 1964

# 20 TRANSPORT

## RAILWAYS

The Indian railway system is the largest in Asia and the fourth largest in the world. It is also the biggest public undertaking in the country. The railways, during 1975-76, had a route length of 60,231 km. They ran daily about 11,000 trains, covering a distance of about 13 lakh km, operated 7,056 stations, carried over 80 lakh passengers and about 6.1 lakh tonnes of freight. The operational fleet consisted of 11,095 locomotives, 38,818 coaching vehicles and 3,95,250 wagons. They employed 14.5 lakh regular employees and about 3 lakh casual labourers. The total investment was Rs 5,345 crores and the revenue Rs 1,767 crores.

Progress under the Plans

As a result of planned development since 1951, both the passenger and goods traffic have more than doubled. The passenger vehicles and wagons have practically doubled but the number of locomotives has increased by 20 per cent.

There has also been a progressive increase in expediture on the development of railways under the Five Year Plans. It was Rs 423.23 crores, Rs 1,043.69 crores, Rs 1,685.8 crores and Rs 1,419.76 crores in the First, Second, Third and Fourth Plans respectively. In the first year of the Fifth Plan it was Rs 346.68 crores and in the second year Rs 393 crores. The proposed outlay under the Fifth Plan is Rs 2,350 crores, besides Rs 200 crores allocated for transport projects in the metropolitan cities of Bombay, Calcutta, Delhi and Madras.

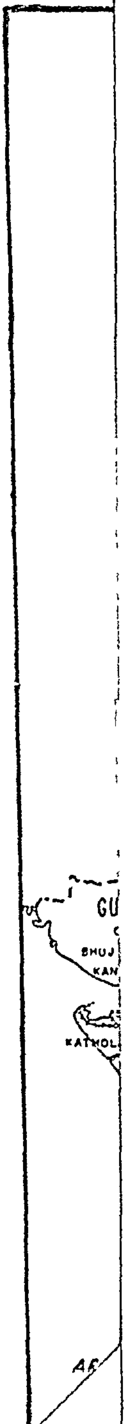
Tables 20.1 and 20.2 show the progress of the government railways for selected years since 1950-51.

TABLE 20 1
PROGRESS OF GOVERNMENT RAILWAYS

| Year | Route length (kilo metres) | | | Running track (km) | Passengers originating (lakhs) | Goods originating (lakh tonnes) |
|---|---|---|---|---|---|---|
| | Electrified | Non-electrified | Total | | | |
| 1950-51 | 388 | 53,208 | 53,596 | 59,315 | 12,840 | 930 |
| 1960-61 | 748 | 55,499 | 56,247 | 63,602 | 15,940 | 1,562 |
| 1965-66 | 2,423 | 55,976 | 58,399 | 68,375 | 20,820 | 2,030 |
| 1970-71 | 3,706 | 56,084 | 59,790 | 71,669 | 24,311 | 1,965 |
| 1971-72 | 3,953 | 56,115 | 60,067 | 73,225 | 25,358 | 1,978 |
| 1972-73 | 4,055 | 56,094 | 60,149 | 73,664 | 26,530 | 2,013 |
| 1973-74 | 4,191 | 56,043 | 60,234 | 74,104 | 26,537 | 1,849 |
| 1974-75 | 4,397 | 55,904 | 60,301 | 74,197 | 24,290 | 1,966 |
| 1975-76 | 4,649 | — | 60,231 | 74,290 | 29,465 | 2,233 |

Modernisation of Railways

Tables 20.1 and 20.2 also show the trend towards modernisation of railways. The electrified route length has increased more than 11 times since 1950-51. Steam locomotives, production of which was discontinued from 1972, are being gradually replaced by electric and




, the
imes,
otives
1976
Diesel
total
1960-
of all
g and
6 the

| ıber |
| --- |
| ,ons |
| ;,596 |
| 7,907 |
| 0,019 |
| 3,990 |
| ?,725 |
| 4,283 |
| 8,366 |
| 0,968 |
| 5,250 |

trunk
the
y the
k has
xpress
Some
m an
d has
more
been
0 km

ıction
cs at
l the

deli-
when
lucing
7 AC
lition,
M-3/
about
· cent

for diesel shunters.

Progı
the F

TABL
PROGF
GOVEF
RAILV

Moder
of Raı

diesel locomotives. Since the beginning of the five year plans, the number of diesel locomotives has gone up by more than 100 times, from a mere 17 in 1951 to 1,803 in 1975-76 and of electric locomotives by more than ten times, i.e., from 72 to 796 By 31 March 1976 diesel engines were operating over 30,279 route kilometers. Diesel and electric locomotives together carried 80.1 per cent of the total goods traffic in terms of net tonne km in 1975-76 (10 per cent in 1960-61), although, in terms of numbers, these were only 22 per cent of all locomotives on line. Modernisation and improvement of signalling and telecommunications have also made much headway. In 1975-76 the multi-channel microwave link was in operation on 10,154 km.

TABLE 20 2
ROLLING-STOCK

| Year | Number of locomotives | | | | Number of coaching vehicles[1] | Number of wagons |
|---|---|---|---|---|---|---|
| | Steam | Diesel | Electric | Total | | |
| 1950-51 | 8,120 | 17 | 72 | 8,209 | 18,628 | 2,05,596 |
| 1960-61 | 10,312 | 181 | 131 | 10,624 | 28,439 | 3,07,907 |
| 1965-66 | 10,613 | 727 | 403 | 11,743 | 32,892 | 3,70,019 |
| 1970-71 | 9,387 | 1,169 | 602 | 11,158 | 35,145 | 3,83,990 |
| 1971-72 | 9,222 | 1,288 | 639 | 11,149 | 35,561 | 3,82,725 |
| 1972-73 | 8,963 | 1,431 | 668 | 11,062 | 35,936 | 3,84,283 |
| 1973-74 | 8,847 | 1,610 | 669 | 11,126 | 36,422 | 3,88,366 |
| 1974-75 | 8,682 | 1,702 | 729 | 11,113 | 36,566 | 3,90,968 |
| 1975-76 | 8,496 | 1,803 | 796 | 11,095 | 36,818 | 3,95,250 |

[1]Includes electric multiple units.

Improvement in the standards of track for higher speeds on trunk routes and important mainlines is being brought about with the help of track recording cars, which are now being produced by the railways themselves The improvement in the standard of track has enabled Delhi-Howrah and New Delhi-Bombay Rajdhani Express trains to run at speeds of 130 and 120 km per hour respectively. Some other mail and express trains are also running at 100 to 110 km an hour. On the metre gauge also the maximum permissible speed has been raised from 75 km to 100 km per hour. So far, more than 16,000 km of track on trunk routes and main lines have been bought up to the standards for operation of speeds above 100 km an hour

Manufacture of Rolling-stock

The Ministry of Railways has set up three units for the production of locomotives and coaches. They are the Locomotive Works at Chittaranjan, the Diesel Locomotive Works at Varanasi and the Integral Coach Factory at Perambur.

The Chittaranjan unit began production in 1950 and had delivered 2,351 steam locomotives up to the end of December 1972 when their production was discontinued. Since 1961, it has been producing electric locomotives Up to 31 March 1977, it had produced 497 AC and 78 DC and 18 AC/DC broad gauge electric locos. In addition, it also produced 281 diesel shunting locomotives and 30 ZDM-3/ZDM-4 narrow gauge diesel locos The indigenous content is about 88 per cent in the case of electric locomotives and about 81 per cent for diesel shunters.

The Diesel Locomotive Works, Varanasi, set up in 1964, started with assembling diesel locos from imported components. The first loco from this unit was commissioned in the same year. Up to the end of March 1977, it had turned out 762 BG and 173MG locomotives, in addition to 5 OBO diesel shunters and 21 WDS-5 diesel electric shunters and 27 WDS-6 prototype shunters. The indigenous content of BG locos is 90 5 per cent and that of MG locos 90.6 per cent.

The Integral Coach Factory, Perambur, went into production in 1955. Originally designed to produce broad gauge coach shells, it has diversified its production to turn out furnished coaches, both broad and metre gauge, electric multiple units, diesel rail cars and air-conditioned coaches. Up to 31 March 1977 it had produced 11,815 passenger coaches (unfurnished shells) and the furnishing unit, which was added in 1957-58, had equipped 9,805 coaches. In addition, the Bharat Earth Movers Ltd., Bangalore, a public sector undertaking, produced 220 broad gauge coaches and Jessop and Co. Ltd, Calcutta, turned out 130 metre guage coaches and 48 EMU coaches in 1975-76

Wagon requirements of the railways are largely met by the industry, which includes units both in the public sector and the private sector and to some extent by the railway repair workshops There are 13 units with an annual installed capacity of 30,625 wagons (in terms of four wheelers) in the private sector and three railways workshops with a capacity of approximately 4,000 units annually The production of wagons in 1975-76 was 12,176.5 units.

Passenger traffic and amenities

The passenger traffic was over 295 crores in 1975-76 as against 12.8 crores in 1950-51 The earnings from the II class passengers were Rs 456 81 crores in 1975-76 as compared to Rs 84.47 crores in 1950-51.

The average rate charged per passenger for every kilometre was 2.52 paise (ordinary) and 4 26 paise (mail/express) for II class passengers, 11.2 paise for I class and 36 3 paise for air conditioned class passengers The rates for II class pasengers were among the lowest in Asia.

Since passengers travelling by II class form the bulk of the railway users and are also the main source of income, more and more amenities have been provided for them. Fifty six Janta trains are run exclusively for them. Two-tier and three-tier sleeper coaches have been introduced for their convenience on all mail and express trains. All-steel and light-weight integral type coaches have been provided for safe and comfortable travel.

The task of providing basic amenities, such as, proper booking arrangements, waiting halls and drinking water supply at all stations was completed in 1970-71 Catering arrangements are available at 2,991 stations and 56 pairs of trains Ready-to-serve food is supplied in several trains and the sale of cheap food packets was in force at 150 important stations

Goods Traffic

The railways carried over 22 33 crore tonnes of goods in 1975-76 as compared to 9 3 crore tonnes in 1950-51. The freight revenue was Rs 1,095.7 crores in 1975-76 The principal commodities carried by the railways are shown in table 20.3.

TABLE 20 3
PRINCIPAL COMMODITIES CARRIED BY RAILWAYS

('000 *tonnes*)

| Commodity | 1950-51 | 1960-61 | 1965-66 | 1973-74 | 1974-75 | 1975-76 |
|---|---|---|---|---|---|---|
| Coal | 30,911 | 50,396 | 66,741 | 62,045 | 70,979 | 80,518 |
| Cement | 2,471 | 6,548 | 8,649 | 10,021 | 9,187 | 11,597 |
| Iron and steel | 2,750 | 7,588 | 10,077 | 9,282 | 9,819 | 10,758 |
| Metallic ores (other than manganese ore) | 3,055 | 11,140 | 18,623 | 21,107 | 22,667 | 26,933 |
| Manganese ore | 881 | 1,230 | 1,497 | 1,080 | 1,355 | 1,331 |
| Foodgrains | 7,805 | 12,659 | 14,514 | 14,648 | 13,666 | 16,184 |
| Raw jute | 470 | 644 | 763 | 591 | 485 | 632 |
| Tea | 265 | 250 | 203 | 199 | 198 | 116 |
| Paper and paper products | 193 | 442 | 670 | 199 | 875 | 899 |
| Jute manufactures | 271 | 263 | 275 | 842 | 346 | 548 |
| Raw cotton | 525 | 536 | 485 | 447 | 340 | 382 |
| Cotton textiles | 477 | 380 | 308 | 148 | 141 | 123 |
| Oilseeds | 1,595 | 1,517 | 1,470 | 1,021 | 1,055 | 1,168 |
| Sugarcane | 2,819 | 3,237 | 2,717 | 1,818 | 1,688 | 1,491 |
| Sugar | 933 | 1,488 | 1,543 | 1,382 | 1,566 | 2,038 |
| Salt | 1,576 | 1,981 | 2,569 | 2,339 | 2,964 | 2,904 |
| Chemical manures | 589 | 1,394 | 2,452 | 5,315 | 5,976 | 7,169 |
| Mineral oil | 2,692 | 4,700 | 7,495 | 9,994 | 10,751 | 11,663 |

To speed up movement of freight, many fast goods trains have been introduced on important routes. The first daily super parcel express between Delhi and Calcutta, covering the distance in 34 hours, was introduced in 1973.

To provide door-to-door service, a container service is also operated The containers are carried on guaranteed schedules by fast goods trains. The service, at present, covers Bombay-Ahmedabad, Bombay-New Delhi, Madras-Bangalore, Calcutta-New Delhi, Bombay-Madras, Bombay-Secunderabad, Bombay-Bangalore, Calcutta-Bombay, Calcutta-Madras, Bombay-Kota and New Delhi-Madras-Banglore routes A new super express goods service was introduced between Howrah and Gauhati from May 1976.

**Administration**

The responsibility for the administration and management of government railways vests in the Railway Board under the overall supervision of a cabinet minister. The Board consists of a chairman, who is *ex-officio* Principal Secretary to the Union Ministry of Railways, a Financial Commissioner and three other members, who are all *ex-officio* Secretaries to Government of India in the Ministry of Railways.

**Railway Zones**

The railways are divided into nine zones, each headed by a General Manager, who is responsible to the Railway Board for operation, maintenance and financial matters.

The nine zones, with their headquarters and the route kilometres in brackets are : Central (Bombay-VT, 5,900), Eastern (Calcutta, 4,230), Northern (New Delhi, 10,686), North-Eastern (Gorakhpur, 5,036), North-East Frontier (Maligaon-Gauhati, 3,628), Southern (Madras, 7,449), South-Central (Secunderabad, 6,160), South-Eastern (Calcutta, 6,989), and Western (Bombay-Churchgate, 10.153).

Co-operation between the public and the railway administration is secured through various committees including (i) National Railway Users' Consultative Council; (ii) Zonal Railways Users' Consultative

Committees; and (iii) Divisional Railway Users' Consultative Committees

Railway Finances

Since 1924-25 railway finances remain separated from general revenues. They have their own funds and accounts and the railway budget is presented separately to Parliament However, the Railways contribute to the general revenues a fixed rate of dividend on the capital invested. The quantum of contribution, which at present includes the dividend, payment in lieu of the merger of passenger tax with passenger fares and contribution to the Railways Safety Works Fund, is reviewed periodically by a Parliamentary Convention Committee. So far, six such committees have been appointed.

Table 20 4 gives an outline of government railway finances for selected years since 1955-56.

TABLE 20 4 GOVERNMENT RAILWAY FINANCES

(*Rs. crores*)

| Item | 1955-56 | 1960-61 | 1965-66 | 1975-76 | 1976-77[2] | 1977-78 (B. E) |
|---|---|---|---|---|---|---|
| Passenger earnings | | | | | | |
| Upper class | 12 85 | 15 18 | 27 64 | 53 04 | 569 ·29[3] | 57 ·63 |
| Lower class | 94 86 | 116 41 | 191 53 | 461 09 | | 549 37 |
| Other coaching earnings | 20 87 | 27 ·21 | 39 40 | 89 42 | 86 88 | 91 ·31 |
| Goods earnings | 180 28 | 286 14 | 465 49 | 1,150 27 | 1,325 ·91 | 1,382 94 |
| Other sundry earnings | 6 81 | 12 63 | 22 25 | 50 04 | 53 29 | 53 99 |
| Total earnings | 315 67 | 457 57 | 746 31 | 1,803 86 | 2,035 37 | 2,135 24 |
| Suspense | +0 62 | —0 77 | —12 74 | 36 85 | +0 74 | —25 00 |
| Gross traffic receipts | 316 29 | 456 80 | 733 57 | 1,767 01 | 2,036 11 | 2,110 24 |
| Ordinary working expenses | 212 95 | 313 15 | 485 85 | 1,470 7 | 1,548 96 | 1,648 74 |
| Appropriation to depreciation reserve fund | 45 00 | 45 00 | 85 00 | 115 00 | 135 00 | 140 00 |
| Appropriation to pension fund | — | — | 12 00 | 24 ·25 | 34 40 | 39 35 |
| Payment to worked lines | 0 27 | 0 09 | 0 ·19 | 0 20 | 0 ·21 | 0 21 |
| Total working expenses | 258 22 | 358 24 | 583 04 | 1,609 62 | 1,718 ·57 | 1,828 ·30 |
| Net miscellaneous expenditure | 7 73 | 10 69 | 15 69 | 20 36 | 21 27 | 24 12 |
| Net railway revenues | 50 34 | 87 87 | 134 03 | 137 84 | 296 27 | 257 ·82 |
| Payment to General Revenues | 36 12[1] | 55 86[1] | 116 28 | 198 14 | 208 94 | 225 ·32 |
| Net surplus (+) or deficit(—) | +14 ·22 | +32 01 | +18 56 | —61 11 | +87 ·33 | +32 ·50 |
| Operating ratio (per cent) | 81 6 | 78 4 | 79 5 | 91 1 | 84 ·4 | 86 6 |
| Capital-at-charge | 968 98 | 1,520 87 | 2,680 32 | 4,354 78 | 4,556 ·17 | 4,900 58 |

(1) Dividend only
(2) Provisional
(3) Consolidated for Upper and Lower Classes
B E —Budget Estimates

**Staff welfare**

Several schemes are in operation for the welfare of the railway employees who numbered 14 5 lakhs in 1975-76 as against 9.1 lakhs in 1950-51. Among the important amenities are the provision of housing and medical facilities, holiday homes at hill stations and schools and hostels. Between 1951 and 1976 (31 March), about 2,26,000 residential units, 98 hospitals and 567 health centres were constructed for the staff The number of holiday homes at hill stations and other places was 23. The cost of the welfare schemes during 1975-76 was Rs·13 30 crores which was about ten times the amount spent in 1950-51.

**Research and Training**

The Research, Designs and Standards Organisation (RDSO) was set up in 1957 for achieving self-sufficiency in the designing and manufacture of railway equipment The RDSO was formed by the merger of the Central Standards Office and the Railway Testing and Research Centre. It has its headquarters at Lucknow with branches at Lonavala and Chittaranjan.

Over the years, the RDSO has helped the Railways in indigenisation in all fields of railway operations and has also made it possible for them to export a number of items of railway equipment. It has recently produced an all-aluminium overhead equipment for railway electrification, which is the first such equipment made entirely from aluminium in the world In the field of locomotion, RDSO has successfully evolved a design to repower pack the imported metre gauge YDM—1 class locomotives and give them a new lease of life, by utilising 700 HP diesel engines produced at Chittaranjan Locomotive Works.

The railways have four major training institutions They are: (i) Railway Staff College, Vadodra, (ii) Indian Railways Institute of Advanced Track Technology, Pune, (iii) Indian Railways Institute of Signal Engineering and Telecommunications, Secunderabad and (iv) Indian Railways Institute of Mechanical and Electrical Engineering, Jamalpur. These institutions also train officials from foreign countries

## ROADS

The Indian road network is one of the largest in the world. In 1974-75, the road length was 12 15 lakh km as against 4 lakh km in 1950-51 The road development programme in the Fifth Plan lays emphasis on (i) completion of working spilling over from the Forth Plan; (ii) construction of byepasses around congested cities, replacing railway level crossing with over-bridges or under-bridges, strengthening of pavements and widening of two-lanes of certain remaining single lane sections, (iii) removal of missing links, and (iv) development of rural roads under the Minimum Needs Programme

**Plan Expenditure**

In the first three Plans and the three Annual Plans, a sum of Rs 1,134 86 crores was spent on road development The Fourth Plan expenditure is estimated at Rs 822 37 crores The proposed outlay for road development as envisaged under the draft Fifth Plan for central and state sectors is Rs 1,397.44 crores

Table 20 5 shows the progress of road construction for selected years since 1951.

In terms of area and population, the total road length in the country in 1974-75 worked out to about 37.0 km for every 100 sq km

TABLE 20 5
PROGRESS OF ROAD CONSTRUCTION

('000 *kilometers*)

| Type of Road | 1950-51 | 1960-61 | 1971-72 | 1972-73 | 1973-74 | 1974-75 |
|---|---|---|---|---|---|---|
| Surfaced | 157 | 263 | 423 | 449 | 475 | 493 |
| Unsurfaced | 243 | 261 | 599 | 627 | 663 | 722 |
| Total | 400 | 524 | 1,022 | 1,076 | 1,138 | 1,215 |

of area and 222 km for every one lakh of population. The surfaced road length was 15.0 km for every 100 sq km of area and 90 km for every one lakh of population.

National Highways

The central government is directly responsible for the national highways system. In 1947, approximately 2,560 km of roads called missing road links and thousands of culverts and bridges, which did not exist, were required to be constructed to have an integrated and continuous network. There was an increase in the missing road links owing to the addition of new roads to the national highways system in latter years Up to 31 March 1977, missing road links including diversions constructed totalled 3,946 km and the number of bridges constructed was 289. The present national highways system includes roads of a total length of 28,970 km An outlay of Rs 327.62 crores has been approved in the Fifth Plan for the national highways system.

State Sector Roads

State highways and district and rural roads are the responsibility of state governments The length of surfaced roads, excluding national highways, maintained by various agencies in the states and union territories increased by about 1,93,000 km between 1972 and 1975. Roads will be developed in rural areas under the Minimum Needs Programme, the objective being to link all villages with a population of 1,500 and above with all-weather roads. In coastal. hilly or tribal areas, where the population is sparse, all-weather roads will be provided to clusters of villages with a viable population.

The central government assists in the development of certain selected roads in the states.

The road length in the states and union territories in 1974-75 is given in table 20.6.

Border Roads

The Border Roads Development Board was set up in 1960 to accelerate the economic development of the north and north-eastern border areas by making them accessible through the development of arterial routes The Board's programme includes the construction of about 7,931 km of new roads, improvement of about 7,507 km of the existing roads and surfacing of about 12,132 km of roads. Of this 7,470 of new roads have been constructed, 4,904 km of existing roads improved and 8,913 km of roads surfaced.

The Border Roads Organisation has constructed the world's highest road from Manali in Himachal Pradesh to Leh in Kashmir. The average altitude of the terrain is 4,270 metres and the road negotiates four passes at heights ranging from 4,875 to 5,485 metres.

TABLE 20.6
LENGTH OF ROADS IN INDIA (1974-75)

(Kilometers)

| State/Union territory | surfaced Roads | Unsurfaced Roads | Total |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| Andhra Pradesh | 52,197 | 43,771 | 95,968 |
| Assam | 5,058 | 19,148 | 24,296 |
| Bihar | 21,593 | 72,439 | 94,032 |
| Gujarat | 37,144 | 37,573 | 74,717 |
| Haryana | 15,238 | 9,833 | 25,071 |
| Himachal Pradesh | 2,878 | 8,313 | 11,191 |
| Jammu & Kashmir | 6,393 | 7,682 | 14,075 |
| Karnataka | 57,126 | 40,929 | 97,955 |
| Kerala | 19,337 | 58,776 | 78,113 |
| Madhyal Pradesh | 40,066 | 48,720 | 88,786 |
| Maharashtra | 49,926 | 60,754 | 1,10,680 |
| Manipur | 1,245 | 2,772 | 4,017 |
| Meghalaya | 837 | 3,273 | 4,110 |
| Nagaland | 1,116 | 4,937 | 6,053 |
| Orissa | 13,425 | 34,569 | 47,994 |
| Punjab | 15,161 | 5,939 | 21,100 |
| Rajasthan | 25,164 | 21,950 | 47,114 |
| Sikkim | 96 | 101 | 197 |
| Tamil Nadu | 59,971 | 47,312 | 1,07,283 |
| Tripura | 1,278 | 4,560 | 5,838 |
| Uttar Pradesh | 31,660 | 85,275 | 1,16,935 |
| West Bengal | 28,639 | 89,299 | 1,17,938 |
| Andaman & Nicober Islands | 497 | 232 | 729 |
| Arunachal Pradesh | 949 | 7,929 | 8,878 |
| Chandigarh | 374 | 16 | 390 |
| Dadra & Nagar Haveli | 279 | 118 | 397 |
| Delhi | 1,447 | 147 | 15,942 |
| Goa, Daman and Diu | 3,262 | 3,038 | 6,300 |
| Mizoram | 17 | 1,971 | 1,988 |
| Pondicherry | 1,738 | 9,50 | 1,688 |
| Total | 4,93,111 | 7,22,226 | 12,15,337 |

Road Research

The Central Road Research Institute, New Delhi, was set up in 1952 for conducting research on road engineering Besides this, a number of states have developed their own laboratories Universities and I I.T.'s also participate in road research. For the promotion and coordination of road research at the national level, a Highway Research Board was set up in 1973 under the auspices of the Indian Roads Congress. The Roads Wing of the Union Ministry of Shipping and Transport, among other things, prepares standards, specifications and type designs for the different aspects of roads and bridges, and promotes application of new techniques in the construction of roads and bridges. It has also launched a programme of road research on problems of immediate national importance

Road Transport
*Motor Vehicles*

The total number of motor vehicles on roads on 31 March 1976 was 26 35 lakhs, nearly thirteen times that of 1947. These included 10.32 lakh motor cycles, 6.90 lakh private cars and jeeps, 1 82 lakh public service vehicles including taxis and 3.59 lakh goods vehicles. Maharashtra had the maximum number of vehicles followed by Uttar Pradesh and Karnataka. The state-wise break up of motor vehicles is given in table 20.8.

*Nationalisation of Road Transport*

Barring Goa, Daman and Diu and Pondicherry, most of the states and union territories have nationalised passenger traffic in varying degrees. In Gujarat, Himachal Pradesh, Maharashtra, Orissa and Delhi, nationalised buses run on most of the routes In the country as a whole, 49 8 per cent buses were being run by the public sector undertakings on 31 March 1976. Statutory corporations have been set up under the Road Transport Corporations Act, 1950 in several states. In others, the nationalised services are operated by departmental and municipal undertakings or registered companies. In most of the big cities, bus services are state-owned.

Goods transport continues to be almost exclusively in the private sector.

National Permits Scheme

For removal of constraints on the movement of transport vehicles a scheme of national permits for public carriers has been introduced. Under the scheme, the Central Government has specified the number of national permits each state or union territory can issue. However, the maximum number of permits to be issued initially has been fixed at 5,300. So far 5,066 national transport permits have been issued.

*Passenger Vehicles*

Passenger vehicles fleet in the public sector, during the last 20 years, has increased to over 52,000 from 7,000 and there has been persistent demand for more and more services particularly in metropolitan cities. More than a crore commuters are carried every day by the state transport undertakings which employ about 3 5 lakh persons

*Transport Bodies*

To ensure co-ordination between the central and state policies and operation of the different modes of transport, the Government of India has set up a Transport Development Council. The Inter-State Transport Commission is responsible for the development, coordination and regulation of road transport services on inter-state routes. As a result of the efforts made by the Commission, almost all the states and union territories now have reciprocal arrangements for operation of goods and passenger services on inter-state routes They have introduced zonal permit schemes for the unhindered movement of a limited number of public goods carries over the national and state highways on payment of tax at a single point The national permit scheme, will carry this process considerably further by making the long distance movement of goods vehicles from one zone to another smooth and free of hold-ups.

An Association of State Road Transport Undertakings, set up in 1963, co-oordinates the activities of the undertakings and secure procedural uniformity, higher standards of service and economic operation

The estimated share of roadways and railways with regard to total goods traffic in the country is shown in table 20 7.

TABLE 20·7
RAIL-ROAD TRAFFIC RATIO

(10,000 *Lakh Km*)

| Year | Railways | Road Transport | Percentage share | |
|---|---|---|---|---|
| | | | Railways | Road Transport |
| 1960-61 | 88 | 17 | 83 8 | 16 2 |
| 1965-66 | 117 | 34 | 77 5 | 22·5 |
| 1968-69 | 125 | 40 | 75 8 | 24·2 |
| 1973-74 | 147 | 65 | 69 3 | 30 7 |

*Revenue*

Various road and vehicle taxes brought in a revenue of Rs 1,475 55 crores in 1975-76 Of this, the Centre's share was Rs 1,020.85 crores and that of states Rs 454 70 crores Maharashtra got the maximum revenue from road and goods taxes followed by Tamil Nadu and Uttar Pradesh. The sources of revenue were : import duty on motor vehicles and accessories (Rs 58 63 crores), excise duty on motor vehicles (Rs 82.27 crores), excise duty on tyres and tubes (Rs 134.45 crores), import duty on tyres and tubes (Rs 6 95 crores), import duty on motor fuel (Rs 34.86 crores), excise duty on motor fuel (Rs 703.69 crores) motor vehicle taxes and fees (Rs 202.63 crores), sales tax on motor fuel (Rs 91 95 crores) and passenger and goods taxes (Rs 160.12 crores).

## INLAND WATERWAYS

India has about 5,200 km of major rivers, which are navigable by machanised craft, but only 1,700 km are actually utilised. As regards canals, the available length is 4,300 km but only a length of 485 km is suitable for mechanised craft, of which only 331 km are being actually utilised

Important among the navigable rivers are the Ganga and Brahmaputra and their tributaries; the Godavari, Krishna, Mahanadi, Narmada and Tapti and their canals; the backwaters and the canals of Kerala, the Buckingham canal in Andhra Pradesh and Tamil Nadu and the Cumbarjua canal connecting Mandovi and Zuvari rivers in Goa.

Inland water transport is a state subject The development schemes are mostly taken up by the states as centrally sponsored schemes.

The Fourth Plan expenditure on inland waterways was about Rs 11 crores as against the outlay of Rs 12 crores. A provision of Rs 24 92 crores for central and state sectors has been made in the Fifth Plan for the development of inland waterways The estimated expenditure for the four years of the Plan (1974-78) is Rs 10 79 crores.

*Inland Water Transport Bodies*

The Central Inland Water Transport Board, New Delhi, Formulates policy for the development of inland water transport in the country. The Inland Water Transport Directorate of the Union Ministry of Shipping and Transport gives technical advice to the states, which are responsible for the development of inland waterways

The States of Andhra Pradesh, Assam. Karnatka, Kerala, Madhya Pradesh, Orissa, Tamil Nadu, Uttar Pradesh and West Bengal and the union territory of Goa, Daman and Diu have set up inland water transport organisations to formulate and implement schemes

*CIWTC*

The Central Inland Water Transport Corporation, set up in 1967 at Calcutta, operates the river services between Calcutta and Assam *via* Bangladesh and between India and Bangladesh Its other activities include ship-building and ship-repairing; stevedoring and clearing agency at Calcutta and dredging on the Bhagirathi river.

## SHIPPING

India is the second largest ship-owning country in Asia and ranks Sixteenth in the world Indian ships operate on most of the sea routes of the world.

The shippings tonnage on 1 October 1977 was 53 0 lakhs grt as against 3.72 lakh grt on 1 April 1951 Of this, the central government

TABLE 20 8

DIFFERENT TYPES OF MOTOR VEHICLES ON ROAD

(*as on* 31 *March* 1976)

| State/Union Territory | Two Wheelers | Three Wheelers | | Cars | Jeeps | Taxis | Buses | Trucks | Tractors | Trailers | Others | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Passenger | Goods | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Andhra Pradesh | 66,924 | 3,505 | 140 | 26,756 | 4,529 | 2,873 | 7,580 | 22,190 | 7,167 | 5,292 | 2,144 | 1,50,450 |
| Assam (as on 31-12-73) | 5,173 | 571 | 2,376 | 13,742 | 3,442 | 753 | 1,234 | 13,772 | 3,386 | 2,977 | 5,348 | 52,774 |
| Bihar (as on 31-3-73) | 28,223 | 363[1] | — | 15,691 | 11,300 | 3,972 | 4,184 | 21,481 | 2,386 | 1,498 | 1,224 | 90,322 |
| Gujarat | 1,12,937 | 12,323 | 2,485 | 33,660 | 5,269 | 1,431 | 7,053 | 18,971 | 15,570 | 11,541 | 344 | 2,21,584 |
| Haryana (as on 31-3-75) | 7,743 | 901[1] | | 1,611 | 818 | 735 | 517 | 3,422 | 6,598 | 423 | 66 | 22,834 |
| Himachal Pradesh[5] | 4,695 | — | — | 1,930 | 2,069 | 143 | 1,833 | 4,588 | 937 | — | 570 | 16,765 |
| J & K | 8,171 | 10 | 48 | 3,537 | 2,023 | 1,212 | 1,832 | 3,778 | 803 | 69 | — | 21,483[7] |
| Karnataka | 1,06,859 | 12,255[1] | — | 40,582 | 7,603 | 2,521 | 8,838 | 23,529 | 8,787 | 7,353 | 6,384 | 2,24,711 |
| Kerala | 22,213 | 3,757 | 892 | 29,936 | 4,118 | 13,746 | 7,173 | 14,906 | 3,425 | 94 | 661 | 1,00,921 |
| Madhya Pradesh (as on 31-3-74) | 49,987 | 3,128[1] | — | 17,615 | 3,490 | — | 4,484 | 17,461 | 8,022 | 1,750 | 5,079 | 1,11,016 |
| Maharashtra | 1,60,131 | 8,645 | 7,686 | 1,55,392 | 12,276 | 22,731 | 12,972 | 63,193 | 9,592 | 9,030 | 2,011 | 4,63,619 |
| Manipur | 941 | 621 | — | 415 | 1,188 | 6 | 298 | 1,038 | — | — | 260 | 4,208 |
| Meghalaya | N A | N·A | N A. | N A | N A | N.A | N.A. | N A. | N A | N.A. | N.A. | N A. |
| Nagaland | 42 | — | — | — | 51 | — | — | 65 | — | — | — | 158 |
| Orissa (as on 31-3-75) | 13,012 | 211[1] | | 6,199 | 5,143 | 609 | 1,328 | 7,578 | 1,092 | 598 | 914 | 36,684 |
| Punjab | 64,073 | 2,077 | 1,423 | 17,379 | 2,555 | 1,401 | 4,247 | 9,162 | 45,300 | 25,907 | 1,514 | 1,75,038 |
| Rajasthan | 45,315 | 1,788 | 298 | 10,157 | 10,292 | 394 | 5,454 | 13,458 | 14,851 | 5,885 | 884 | 1,08,776 |
| Tamil Nadu | 63,344 | 4,401 | 1,036 | 52,563 | — | 9,069 | 9,988 | 23,657 | 7,866 | 5,872 | 743 | 1,78,539 |
| Tripura | 871 | 103 | — | 1,658 | 479 | 340 | 329 | 2,036 | 43 | 463 | 75 | 6,397 |
| Uttar Pradesh | 1,17,595 | 2,182 | 915 | 37,263 | 8,692 | 2,983 | 11,246 | 24,897 | 37,025 | 1,007 | 6,958 | 2,50,763 |
| West Bengal | 44,813 | 811 | 446 | 81,393 | 7,797 | 10,231 | 8,521 | 37,105 | 9,060 | 812 | 3,191 | 2,04,180[7] |
| Sikkim | — | — | — | — | — | — | — | — | — | — | — | — |
| Andaman and Nicobar Islands | 624 | 1 | — | 90 | 153 | 44 | 49 | 363 | 67 | 19 | 57 | 1,461 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arunachal Pradesh as on 31-12-74) | 68 | — | — | 18 | 91 | 2 | 13 | 145 | — | — | 22 | 359 |
| Chandigarh (as on 31-12-75) | 16,365 | 1,075 | 118 | 4,500 | 150 | 120 | 107 | 675 | 569 | — | — | 23 679 |
| Dadra & Nagar Haveli | 213 | | | 152 | 19 | 1 | — | 19 | 33 | 17 | 2 | 456 |
| Delhi[6] | 81,042 | 10,937 | N A | 36,170[2] | — | 2,860 | 3,143 | 9,929[3] | — | — | — | 1,43,891 |
| Goa, Daman & Diu | 6,154 | 111 | — | 4,320 | 266 | 521 | 628 | 3,349 | 201 | 14 | — | 15,564 |
| Lakshadweep | N A | N A. | N A | N A | N A | N.A | N A | N A | N.A | N.A | N A | N·A. |
| Mizoram (as on 30-6-75) | 68 | — | — | 124 | 910 | — | 27 | 652 | — | — | 222[4] | 2,003 |
| Pondicherry | 4,022 | 20 | — | 1,776 | 99 | 104 | 100 | 225 | 248 | 196 | 44 | 6,834 |
| Total | 10,31,628 | 69,237 | 17,863 | 5,94,629 | 95,722 | 78,802 | 1,03,178 | 3,41,444 | 1,83,438 | 80,817 | 38,717 | 26,35,475 |

[1]Includes three wheelers used for goods transport.
[2]Includes Jeeps
[3]Includes tractors, trailers and others.
[4]Includes tractors and trailers.
[5]Registered vehicles
[6]Only tax paying vehicles
[7]Provisional
N.A —Not available

undertakings owned 27.21 lakh grt, i e, 54 per cent. For the first time, in 1977, two fully refrigerated vessels were added to the fleet.

**Shipping Bodies**

The National Shipping Board advises the government on shipping. The Board was reconstituted in 1976 The Shipping Co-ordination Committee in the Union Ministry of Shipping and Transport seeks to bring about better liaison between the Government and the shipping companies to ensure maximum utilisation of the available capacity. The All India Shipping Council is concerned with negotiations on freight and shipping problems at shipping conferences and with shipping companies.

The Indian National Shipowners' Association, which is also represented on most of the government bodies on shipping, promotes, the interests of national shipping, ship-building and allied industries.

**Shipping Companies**

There are at present 50 shipping companies in the country. Of these, two companies, namely, the Shipping Corporation of India Ltd., (SCI), and the Mogul Line Ltd, are in the public sector and the rest in the private sector.

The SCI, which is one of the biggest shipping lines in the world, has a fleet of 135 vessels with 25 9 lakh grt as on 1 October 1977. It operates on all the important maritime routes It also operates overseas tanker services under charter, besides coastal services. During 1974-75 the SCI had a record freight earning of Rs 24 crores From the level of 2 00 lakh dwt of ships in 1961, its tonnage crossed the 10.00 lakh dwt mark in 1970, 20,00 lakh dwt in 1974, 30,00 lakh dwt in 1975 and 40 lakh dwt in 1976. The SCI has also started a joint shipping venture with Arya-National Shipping lines of Iran to operate between India and Iran as well as some ports of the Far East region.

The Mogul Line Ltd, mainly carries Haj pilgrims from Bombay to Jeddah (Saudi Arabia) and back. It also operates two passenger vessels on the Konkan coast. Its fleet consists of 19 vessels with a total grt of 2,15,000.

Among the major private sector shipping companies which own one lakh or more grt are the Scindia Steam Navigation Company Ltd., (5.74 lakh grt), Great Eastern Shipping Company Ltd., (4.39 lakh grt), India Steamship Company Ltd., (2 35 lakh grt) and South India Shipping Corporation Ltd (1 51 lakh grt).

The cargo carried by Indian ships in the country's overseas trade was 2 68 crore tonnes in 1975-76 amounting to 42 per cent of the country's trade

In January 1975, a protocol on resumption of shipping services with Pakistan was signed in New Delhi, according to which trade will be carried by the ships of both the countries on 50 ·50 basis.

The UN Code of Conduct for Liner Conferences was signed by India in June 1975 subject to and followed by ratification

**Training Institutions**

There are six training establishments for merchant navy officers and ratings Training ship 'Rajendra' at Bombay imparts pre-sea training to navigation cadets The Directorate of Marine Engineering Training, Calcutta, trains engineering cadets The Lal Bahadur Shastri Nautical and Engineering College, Bombay, conducts post-sea instructional courses for navigation and engineering cadets Training ships 'Bhadra', 'Mekhala' and 'Naulakhi' provide pre-sea training courses for deck and engine room ratings and bhandari cooks.

**Ship-Building**

India has three major ship-building yards, the Hindustan Shipyard at Vishakhapatnam, Garden Reach Workshops at Calcutta and Mazagaon Dock at Bombay A fourth shipyard is under construction at Cochin All the shipyards are in the public sector.

*Hindustan Shipyard*

The Hindustan Shipyard has built 70 ships since 1947. Its present production capacity is 2 5 ships of 21,500 dwt each year. Under an integrated development programme, the production capacity of the yard is being raised to 6 ships aggregating 1,29,000 dwt annually. Apart from a dry dock, which is in operation since 1971, the construction of a wet basin was started in 1972 On completion, it will enable the shipyard to undertake above water repairs of ships and provide increased fitting-out facilities

*Garden Reach Workshops*

The Garden Reach Ship Builders and Engineers build tugs, barges, dredges and coasters They have now a capacity to build ocean-going merchant ships of 15,000-26,000 dwt every year They have obtained orders for the construction and delivery of three ships each of 26,000 dwt. The delivery is to commence in 1978.

*Mazagaon Dock*

The Mazagaon Dock, which primarily builds ships for the Navy, is also capable of building cargo ships, passenger ships, cargo-cum-passenger ships and dredgers. Its subsidiary, the Goa Shipyard Ltd , builds launches and tugs and also undertakes ship repairing

*Cochin Shipyard*

The shipyard at Cochin, provides for a dock for building ships of 85,000 dwt and another dock for repair of ships up to 1,00,000 dwt. Under an agreement, a Scottish firm is collaborating in constructing the first series of five ships of 75,000 dwt each The production has already commenced and the first vessel is expected to be delivered in 1978.

**PORTS**

India has ten major and more than 160 intermediate and minor ports scattered along her 6,100 km long coastline

**Major Ports**

The major ports are at Bombay, Calcutta, Cochin, Kandla, Madras, New Mangalore, Mormugao, Paradip, Tuticorin and Visakhapatnam.

Among the major ports Bombay is the biggest. About a quarter of the foreign trade of India passes through Bombay Calcutta is the largest terminal port in South Asia It commands the largest and the richest hinterland A new mechanised dock system at Haldia with provision for deeper draughted vessels down stream of Calcutta supplements the facilities already available at Calcutta port Cochin is one of the finest natural harbours in the East Kandla has been developed as a major port to relieve the pressure on Bombay. A free trade zone was created at Kandla in 1965. Madras is a man-made port Mormugao (Goa) enjoys the second position in total traffic tonnage Paradip (Orissa) is primarily for the export of minerals, specially iron ore. Vishakhapatnam is the only land-locked and protected port. Mangalore on the west coast and Tuticorin on the east coast were declared major ports in 1974. All the major ports except New Mangalore and Tuticorin, are administered by statutory Port Trust Boards

The traffic handled by the major ports during 1976-77 was 6.77 crore tonnes.

**Intermediate and Minor Ports**

The Indian coastline is served, apart from major ports, by more than 160 intermediate and minor ports which handle coastal and overseas traffic. The responsibility for the development of such ports vests in the state governments concerned. The central government gives loans and provides technical advice to state governments.

The Fifth Plan provides Rs 10 crores for the development of intermediate and minor ports. In addition, Rs 12 crores have been set aside for the development of ports in Andaman and Nicobar Islands and Lakshadweep.

**National Harbour Board**

The National Harbour Board was set up in 1950 to advise the central and state governments on the management and development of ports, particularly minor ports. It consists of representatives of the maritime states, the central ministries concerned, port authorities and non-official members representing Parliament, shipping, trade, industry and harbour

**Navigational Aids**

The navigational aids have been categorised into 'general' and 'local'. While the central government looks after the general navigational aids, the states, port trusts and other agencies are responsible for the local aids. However, under the Indian Light House Act, 1927, the central government exercises general control over all aids through the Department of Lighthouses and Lightships The Department maintains various navigational aids along the coast of India, besides launches and VHF wireless sets. There are, among others, 129 light houses, 20 lightbuoys, 15 fog signals, seven radio beacons, eight Dacca navigator chain stations, one light vessel and two radars In the Fifth Plan, Rs 13.66 crores have been provided both for spill-over and new schemes

## CIVIL AVIATION

On 31 December 1976, there were 661 aircraft with current certificates of registration and 250 with current certificates of air-worthiness. During 1976, Indian aircraft flew, on scheduled services, 7.69 crore kilometres, carried 45.35 lakh of passengers and 81,805 tonnes of cargo and mail as against 7.16 crore kilometres, 38 39 lakh passengers and 69,213 tonnes of cargo and mail respectively in 1975.

**Directorate of Civil Aviation**

The Civil Aviation Directorate operates the civil airports in India except the international airports. It is also responsible for the air navigation services which include air traffic control and services for safety and regularity of aircraft operations.

**IAAI**

The International Airports Authority of India (IAAI) was set up in 1972 for the operation, management, planning and development of the four international airports The Authority took over the international airports on 1 April 1972.

**Airports**

There are four international airports and 85 other aerodromes in the country The international airports are Bombay (Santa Cruz), Calcutta (Dum Dum), Delhi (Palam) and Madras (Meenambakkam). The Aerodromes maintained by the Civil Aviation department as on 31 December 1977 are:

Major Aerodromes. Agartala, Ahmadabad, Amritsar, Begumpet

Delhi (Safdarjung), Gauhati, Jaipur, Lucknow, Nagpur, Patna, Tiruchchirappalli, Varanasi (Banaras).

Intermediate Aerodromes : Aurangabad, Behala, Belgaum, Bhavnagar, Bhuntar (Kulu), Bhopal, Bhubaneswar, Bhuj, Bombay (Juhu), Coimbatore, Gaya, Indore, Junagadh (Keshod), Kailashahar, Kamalpur, Kandla, Khajuraho, Khowai, Kota, Kumbhirgram, Madurai, Mangalore (Bajpe), Mohanbari, Muzaffarpur (Rewaghat), Nadirgul (Gliderdrome, Hyderabad), North Lakhimpur (Lilabari), Panagarh, Pantnagar (Phoolbagh), Porbandar, Port Blair, Raipur Rajkot, Ranchi, Tirupati, Trivandrum, Tulihal (Imphal), Udaipur, Vadodara, Vijayawada. Vishakhapatnam.

Minor Aerodromes : Akola, Balurghat, Barapani (Shillong), Bilaspur, Chakulia, Cooch Behar, Cuddapah, Donakonda, Hadapsar (Gliderdrome, Pune ), Hassan, Jabalpur, Jhansi, Jharasuguda, Jogbani, Kanpur (Civil), Khandwa, Kolhapur, Lalitpur, Malda, Mysore, Palanpur (Deesa), Panna, Passighat, Rajahmundry, Ramnad, Raxaul, Rupsi, Satna, Shella, Sholapur, Thanjavur, Vellore, Warangal.

In addition there are many aerodromes controlled/owned/maintained by Ministry of Defence, state governments, public undertakings and private individuals and bodies.

**Air Services**

The scheduled air services are run by two public sector corporations, Indian Airlines and Air-India, both of which were formed in 1953. The Indian Airlines provides air services within the country, linking up most of the principal Industrial and tourist centres, and also to neighbouring countries, such as, Bangladesh, Nepal, Afganistan, Pakistan, Maldives and Sri Lanka During 1976, it flew 36,71,365 passengers and covered over 26 73 crore revenue tonne kilometres Its operational fleet at present consists of 3 Airbus A 33, 12 Boeing-737, 5 Caravelle, 3 Viscount, 8 Fokker Friendship, 15 HS-748 and 2 Dakota.

Air India provides services to through 34 countries. During 1976, it carried 8,62,661 passengers and flew about 65 26 crore tonne kilometres. Its fleet consists of 9 Boeing-707 and 5 Boeing 747 (Jumbo Jets).

**Air Transport Agreement**

India has air transport agreements with Afghanistan, Australia, Bangladesh, Belgium Burma, Czechoslovakia, Egypt, Ethiopia, Federal Republic of Germany, Fiji, France, Ghana, Hungary, Indonesia, Iraq, Italy, Japan, Kuwait, Lebanon, Malaysia, Mauritius, Nepal, Netherlands, Nigeria, Poland, Pakistan, Philippines, Saudi Arabia, Singapore, Sri Lanka, Switzerland, Thailand, UK, USA, Yemen-Peoples' Democratic Republic and USSR

**Flying Clubs and Gliding Centres**

There are 25 subsidised flying clubs with headquarters at Amritsar, Banasthali, Bangalore, Baroda, Bhubaneswar, Bombay, Calcutta, Coimbatore, Gauhati, Hissar, Hyderabad, Indore, Jaipur, Jamshedpur, Jullundur Cantt, Karnal, Lucknow. Ludhiana, Madras, Nagpur, New Delhi, Patiala, Patna, Raipur and Trivandrum

There is one Departmental gliding centre at Pune and 13 subsidised gliding clubs at Agra, Ahmadabad, Amritsar, Hissar, Jaipur, Jullundur, Kanpur, Deolali, New Delhi, Patiala, Patna, Pilani and Raipur

**Training Centres**

The Civil Aviation Training Centre at Allahabad comprising an aerodrome school and a communications school trains air traffic controllers, radio operators and technicians Ground training to

pilot trainees is also provided. The Central Flying Training School at Nadirgul, Hyderabad, imparts advanced training to candidates from the flying clubs for the grant of commercial pilot licences.

## TOURISM

In 1976, 5,33,951 tourists visited India as compared to 4,65,275 in 1975 an increase of 14.8 per cent. The foreign exchange earnings from tourism were estimated at Rs 225 crores in 1976 against Rs 104.2 crores in the preceding year.

India's potential for tourism is as vast as it is varied. While the infrastructure at home is being strengthened, promotional activities are undertaken abroad to attract more tourists. With a view to diversifying tourist attractions the Department has taken up the Development of beach and mountain resorts. The places selected for the purpose are Gulmarg for winter sports and Kovalam and Goa for beach resorts. A sum of Rs 40.74 crores has been provided for developing tourism in the Fifth Plan as against Rs 34 80 crores in the Fourth Plan.

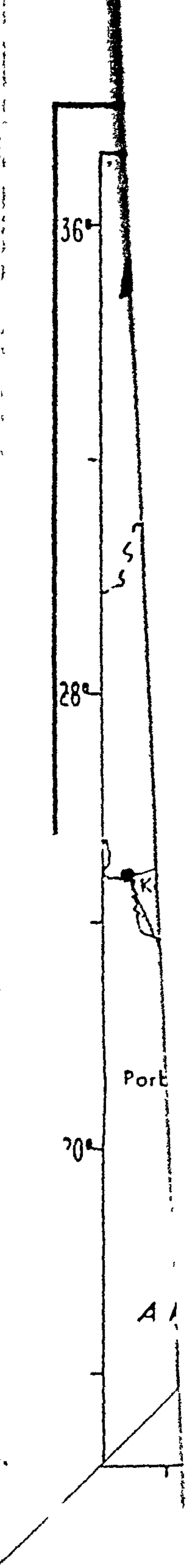
The emphasis in the Fifth Plan will continue on building up the tourist infrastructures (accommodation, transport and entertainment facilities), development of selected areas as mountain and beach resorts, development of cultural tourism as represented by archaeological and historical monuments, and the development of wild life tourism. The entire effort in implementing the Plan schemes is directed to achieve the target of ten lakh tourists visiting India by 1980.

**Tourism Bodies**

The National Tourism Board, set up in 1972, advises on tourism policy and directions in which tourism should be developed. The Tourist Development Council co-ordinates tourism plans of the central and state governments. The Department of Tourism of the Union Ministry of Tourism and Civil Aviation has both promotional and organisational functions and works in close co-operation with the India Tourism Development Corporation. Several states and union territories have also set up tourism departments and offices.

The Department of Tourism has a chain of regional offices at home and abroad. Regional offices are functioning in Bombay, Calcutta, Delhi and Madras with sub-offices at Agra, Aurangabad, Cochin, Jaipur, Jammu, Khajuraho and Varanasi. These offices work in close collaboration with state governments, travel agents, hoteliers and carriers. Abroad, India has tourist offices in New York, Los Angeles, Chicago, Toronto, London, Kuwait, Paris, Tokyo, Frankfurt, Geneva, Brussels, Stockholm, Milan, Singapore, and Vienna. In addition, tourist promotion centres are based at Boston, Dallas, Detriot, Miami, San Francisco and Washington. New offices are being set up in Osaka, Melbourne and Tehran The various tourist offices abroad are functioning under a scheme of close collaboration between the Department of Tourism and Air India for promotion of tourist traffic from the respective regions

To meet the demands of these offices Department of Tourism produces tourist literature in English, German, Spanish, French, Italian, Persian, Arabic, Japanese, Thai, Malay and Chinese languages. On an average 50 lakh copies of tourist literature are produced for distribution abroad Similarly tourist offices maintain film libraries on subjects of tourist interest.




roved
odges,
ovide
odges
ional
with

pread
im-
cially
er of

tion,
have
ased
e to
ways
are
ring
21
over
avel

the
the
tels,
for
rial,
at

s—
val-
also
rati
it
rist

eo-
ons
nal
es-
ay,
m-
in
ati,
gu,
the
ne-
ur,
tre

**Accommodation and Other Facilities**

There are at present 272 hotels, with 15,203 rooms, on the approved list of the Department of Tourism. Youth hostels, forest lodges, reception centres, tourist bungalows and camping sites provide supplementary accommodation to low-budget tourists. Forest lodges are also being constructed at five wild life sanctuaries and national parks. The Department has provided 22 mini coaches fitted with public address system to different state governments.

At present, there are 125 approved tourist car operators spread over 30 tourist centres and a number of approved tourist shops at important tourist centres Apart from this, there are 119 officially registered travel agencies in the country and an increasing number of trained and approved travel guides

**Incentives for Tourists**

To promote tourist traffic regulations relating to police registration, currency, exchange control, customs, prohibition and visas have been liberalised The validity of landing permits has been increased from 28 to 30 days Tourist from many countries can now come to India without a visa. Concessional tickets are issued by the railways for round-trip journeys and circular tours. Special concessions are given to students and pilgrims and for travel to hill stations during summer months "Travel As You Like" railway tickets, valid for 21 days, are also available to foreign tourists The scheme "Discover India Fare" allows foreign tourists 21 days of unrestricted travel on the domestic sectors of Indian Airlines.

**India Tourism Development Corporation**

The India Tourism Development Corporation, set up in 1966, is the only multi-unit undertaking for the development of tourism in the country It looks after the construction and management of hotels, motels and travellers' lodges, provision of transport facilities for tourists, production of tourist publicity and promotional material, provision of entertainment and management of 'duty free' shops at international airports.

Presently, the Corporation has under its management 15 hotels—six in Delhi, and one each at Aurangabad, Banglore, Calcutta, Kovalam, Khajuraho, Mysore, Udaipur, Varanasi and Patna. It also arranges sound and light shows at Red Fort, Delhi; Sabarmati Ashram, Ahmedabad; and Shalimar Gardens, Srinagar In addition it runs 2 motels at Jammu and Hassan (Karnataka) as well as tourist cottages at Kovalam and Mahabalipuram

## METEOROLOGY

Meteorological and weather services are provided by the India Meteorological Department which is one of the oldest scientific institutions in the country It has its headquarters at New Delhi and two functional offices at Pune responsible for climatology and forecasting services respectively. There are five Regional Meteorological Centres at Bombay, Calcutta, Madras, Nagpur and New Delhi. The Calcutta unit compiles and publishes the 'Indian Ephemeris and Nautical Almanac' in English and the 'Rashtriya Panchang' in Bengali, English Gujarati, Hindi, Kannada, Malayalam, Marathi Oriya, Sanskrit, Tamil, Telugu, and Urdu. Further in order to have a better coordination with the state governments, Meteorological Centres have been set up at Ahmedabad, Bangalore, Bhopal, Bhubaneswar, Gauhati, Hyderabad, Jaipur, Lucknow, Patna, Srinagar and Trivandrum The Trivandrum centre

maintains liaison with the Thumba Equatorial Rocket Launching Station for meteorological sounding of the upper atmosphere with rockets.

The Department issues 'warnings' against heavy rainfall, strong winds and cyclonic weather for the general public and a number of private and public organisations including aviation, defence services, shipping, ports and fishing crafts, mountaineering expeditions and agriculturists. Flood meteorological offices have been working at Ahmedabad, Bhubaneswar, Delhi, Gauhati, Lucknow, Jalpaiguri, Patna, and Hyderabad to give meteorological support to the Flood Forecasting Organisation set up by the Central Water Commission.

There are separate directorates of the Department to deal with agricultural meteorology, meteorological training weather analysis over the Indian Ocean and Southern Hemisphere, instruments, hydrometeorology, aviation services, seismology, radio-meteorology, satellite meteorology and meteorological telecommunications.

Cyclone Forecasts

Cyclone warnings to ports and ships are issued by Bombay, Calcutta and Madras offices. These are based on data of weather satellites obtained through automatic picture taking stations at Bombay, Calcutta Gauhati, Madras, New Delhi and Pune For improving the cyclone 'warnings', the Meteorological Department has established cyclone radar stations at Bombay, Calcutta, Madras, Paradip and Vishakhapatnam Three more stations at Masulipatnam, Karaikal and Goa have been planned for vulnerable areas of the Indian coastline. A cyclone warning and research centre has been established at Madras to investigate problems exclusively relating to tropical cyclones. The use of numerical weather prediction models and fast electronic computers is also being made to predict changes in atmospheric circulation.

Tourists' Meteorological Services

Tourism departments at the centre and the states have access to the records of the Meteorological Department for providing information to tourists regarding the best period to visit India in their respective fields of interest

Tourists' meteorological offices are being set up in various parts of the country to issue weather forecasts to the tourists of each resort. Two such centres have been set up at Kovalam and Mahabalipuram

Exchange of Data

Meteorological data are exchanged with many countries through high speed telecommunication facilities. As part of India's cooperation in the World Weather Watch, the Regional Meteorological Centre and the Regional Telecommunication club have been established at New Delhi An area forecast centre has also been set up in New Delhi to exchange data with international airports.

# 21 COMMUNICATIONS

The history of modern postal system in India may be traced back to 1837 when postal services were thrown open to the public. The first postage stamp was issued in Karachi in 1852 though it was valid only in Sind The postal department was set up in 1854 when about 700 post offices were already functioning in the country. The money order system was introduced in 1880. Five Year later, postal savings bank scheme was put in operation. The railway mail service was started in 1907 and the air mail service in 1911.

Remarkable progress in communication services has been made between 1951 and 1977. During the period, the number of post offices has increased by more than three times; telegraph offices more than doubled and telephones increased more than eleven times. The subscriber trunk dialling service, introduced in 1960, is now in operation on 241 two-way and 20 one-way routes The overseas communication system connects India with almost all countries of the world.

The Posts and Telegraph Board which provides the postal and telecommunication services is, one of the largest employers in the country. The number of persons (including extra-departmental and industrial workers) employed by the Board as on 31 March 1976 was 6.77 lakhs

For operational purposes, the country is divided into 15 telecommunication circles and 16 postal circles, 16 P & T civil circles, 4 P & T electrical circles and 19 telephone districts of Ahmedabad Amritsar, Bangalore, Bombay, Calcutta, Coimbatore, Delhi, Ernakulam, Hyderabad, Indore, Jaipur, Kanpur, Ludhiana, Lucknow, Madras, Nagpur, Patna, Pune and Surat Apart from these, there are units for specific purposes The Ministry of Communications, through the Department of Posts and Telegraphs, discharges also certain agency functions like collecting Broadcast Receiver Licence fees, running post office savings banks, issuing national savings certificates and postal life insurance policies and selling units of the Unit Trust of India In some of the metropolitan cities private car owners can also pay their vehicle tax through specified post offices.

## POSTAL SERVICES

The number of post offices on 1 April 1977 was 1,20,999 including 1,08,491 in rural areas. On an average, each post office served 4,533 persons and covered an area of 27.17 sq km as against 10,026 persons and 91.12 sq km respectively in 1951. During the Fifth Plan, it is proposed to open/upgrade 7,500 post offices. The number of letter boxes on 1 April 1977 was 2,41,389. Delivery of mail was being made daily to 96 per cent villages and the rest will be covered during 1977-78. The number of postal articles handled during 1975-76 was 750 4 crores including 10 4 crores inland money orders. The postal revenue was Rs 167.85 crores

### Conveyance of Mail

Mail is carried both by surface and air. For surface mail, various modes of conveyance are used. The total surface route length covered in 1975-76 was 9 5 lakh km of which 15 per cent was by rail, 36 per cent by motor services, 29 per cent by runners and carriers and 16 per cent by various other means such as boats, camels, horses and

bicycles All the principal cities connected by air are served direct and other cities connected subsequently by surface. The total length covered by air is 52,000 km.

Under the "all up scheme" all inland letters, letter cards, post-cards, registered letters and money orders are normally carried by air without surcharge. The total weight of airmail carried in 1975-76 was 93 lakh kg.

**Quick Mail Service**

A new scheme called Quick Mail Service was introduced in 1975. This covers all state capitals, headquarters of all union territories and important commercial towns. All unregistered articles bearing the Postal Index Number (PIN) of the destination in their addresses and posted in special QMS letter boxes can avail of this facility. Letters posted under this scheme are normally delivered the very next day Within the states, the regional quick mail service connects most of the district headquarters to the state capitals There are at present 45 national and 398 regional Quick Mail Service Centres in the country

**Foreign Mail Arrangements**

India is a member of the Universal Postal Union since 1876. It has postal communication facilities with 88 countries of the world. Both surface and air routes are used to despatch and receive postal articles.

The frequency of air despatches varies from 2 to 7 a week depending on the quantum of mails and the availability of flights to the country concerned. Frequency of surface despatches varies from daily despatches to the neighbouring countries to once a month and in a few cases to once a quarter or so, depending on the availability of sailings from Indian ports.

**Pin Code**

For efficient and correct handling of the growing volume of mail a numerical postal address code known as the Postal Index Number (PIN) code was introduced in 1972 The code has six digits which helps to identify and locate every departmental delivery post offices excluding branch post offices The first digit indicates the region, the second digit the sub-region and the first three digits taken together, the central sorting district. The last three digits indicate a particular delivery post office in the area served by the sorting district

Table 21.1 gives important data relating to postal services in the country.

**Post Offices in Backward Areas**

Extension of postal facilities to backward and hilly areas has been further liberalised since 1971. During 1976-77 more areas in various states were declared as very backward for the purpose of expansion of postal facilities. New post offices are opened in 'very backward areas' on the criterion that these post offices earn an estimated revenue of 15 per cent of their cost In hilly areas, it is put at 10 per cent of the cost. On 1 April 1977, the number of such post offices was 15,581

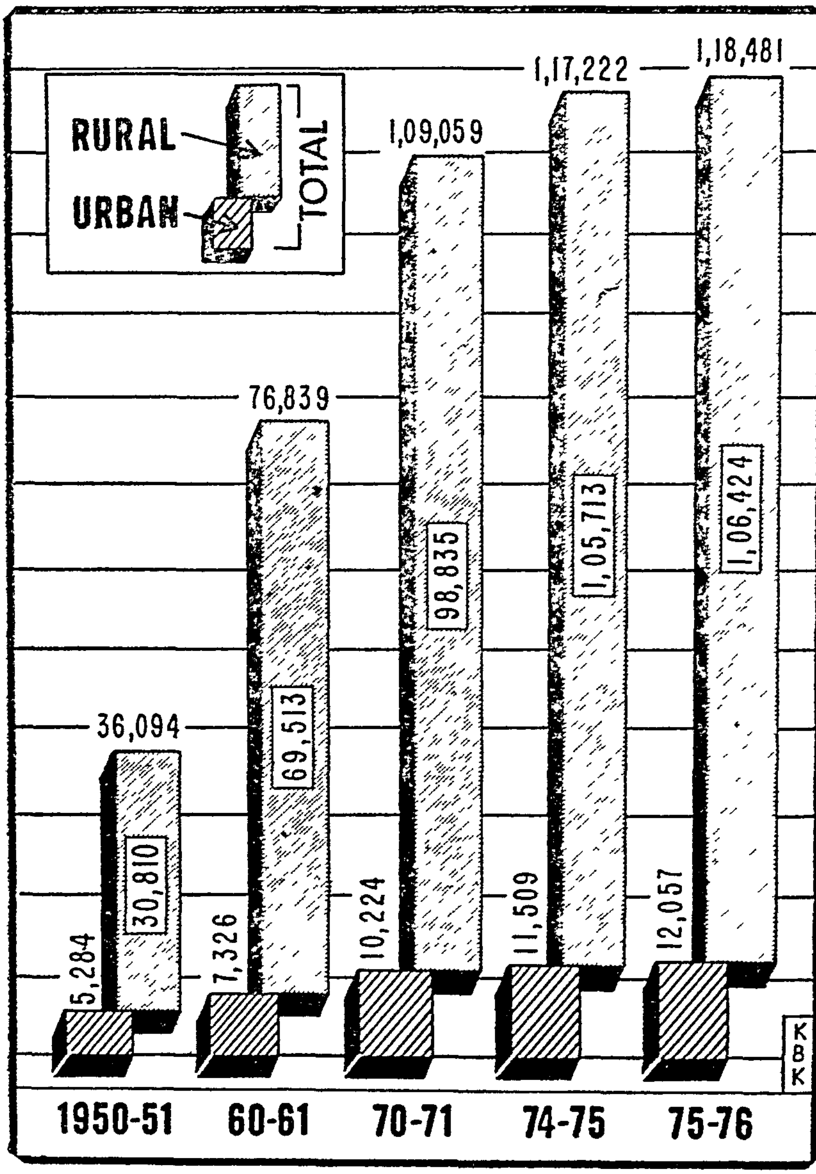
**Post Office Savings Bank**

The number of depositors of the post office savings bank was 2 95 crores as on 31 March 1976 involving a total amount of Rs 1,328 crores The expansion of post office savings bank business since 1961 is shown in table 21.2.

TABLE 21 1
POSTAL STATISTICS

| | 1950-51 | 1960-61 | 1970-71 | 1974-75 | 1975-76 |
|---|---|---|---|---|---|
| Number of Post Offices | | | | | |
| Urban | 5 284 | 7,326 | 10,224 | 11,509 | 12,057 |
| Rural | 30,810 | 69,513 | 98,835 | 1,05,713 | 1,06,424 |
| Total | 36,094 | 76,839 | 1,09,059 | 1,17,222 | 1,18,481 |
| Postal articles (crores) | 232 10 | 410 55 | 645 74 | 718 10 | 739 98 |
| Regd articles (crores) | 7 65 | 11 60 | 18 28 | 19 66 | 20 28 |
| Insured articles (lakhs) | 37 23 | 41 00 | 64 C0 | 67 70 | 71 90 |
| Money orders (crores) | 5 10 | 7 65 | 9 46 | 9 62 | 10 37 |
| Value of money orders (Rs crores) | 195 00 | 334 25 | 610 26 | 850 40 | 948 ·88 |
| Postal revenue (Rs crores) | 21 03 | 40 78 | 110 54 | 142 07 | 167 85 |

# NUMBER OF POST OFFICES



Various measures were taken in 1975-76 to attract more deposits. From 1 June 1974 instant counter service facilities were extended to all the head post offices in the country. The instant counter service which was available in the head post offices numbering 582 was extended to about 3,000 sub post offices from November 1975. This is similar to the teller system in commercial banks. To mop up resources for plan projects a new scheme called Savings Bank Prize Incentive Scheme was introduced in 1973. It is still in operation.

TABLE 21.2
Expansion of Post Office Savings Bank

(*As on* 31 *March*)

| | Savings bank | | Cumulative time deposits | | Savingss certificates |
|---|---|---|---|---|---|
| | No. of depositors (lakhs) | Balance (Rs crores) | No of depositors (lakhs) | Balance (Rs crores) | Balance (Rs crores) |
| 1961 | 92 | 431·40 | 3·98 | 2·65 | 377·20 |
| 1970 | 197 | 891·00 | 51·18 | 98·31 | 921 89 |
| 1971 | 206 | 974·00 | 51·30 | 116·54 | 888 49 |
| 1972 | 218 | 1,025·00 | 51·65 | 133 73 | 883 50 |
| 1973 | 231 | 1,119·00 | 49·99 | 144·19 | 949·97 |
| 1974 | 250 | 1,264 00 | 47·08 | 156 78 | 1,021·64 |
| 1975 | 278 | 1,265·91 | 31·05 | 165 81 | 899·80 |
| 1976 | 295 | 1,327 29 | 37·76[1] | 173·78[1] | 880·24 |

[1]Provisional

Postal Life Insurance

The number of postal life insurance policies in force as on 31 March 1977 was 4,54,447 and the sum assured was of the value of Rs 192 crores During 1976-77, 72,780 new policies of the value of Rs 42 crores were issued as against 61,337 policies of the value of Rs 36 crores during 1975-76. It showed an increase of 18 per cent over the previous year.

COMMEMORATIVE STAMPS

The Indian Posts and Telegraphs Department has been issuing special commemorative postage stamps since 1931, on eminent personalities and important events. Since the attainment of independence in 1947, Indian Philately has made great strides. Indian stamps depict a wide range of themes relating to the life and culture of the Indian people, their achievements in various fields and also important national and international events Indian stamps are popular both at home and abroad. In 1976, 37 special and commemorative stamps were issued including a series of stamps on olympic games, wild life, tribals of India and Flowers of India. A series of four stamps on Indian locomotives was issued on 15 May 1976. Twenty stamps were issued as on 1 July 1977.

Exhibitions

One of the most important means of promoting philately is by holding Philatelic Exhibitions periodically and encouraging Indian Philatelists to participate in international philatelic exhibition. The Indian P & T Department organised the Second India National Philatelic Exhibition at Calcutta in December 1975. In the Seventh International Philatelic Exhibition-Interphil '76 held in Philadelphia, USA in May-June, 1976, Indian Philatelists won 15 prizes including large gold, gold and silver medals.

At present a network of 29 philatelic bureaux and 135 philatelic counters are operating in different parts of the country. Besides agents have been appointed in North America, Western Europe, Japan and Australia for sale of Indian stamps in these regions.

**TELEGRAPH SERVICES**

Indian Telegraphs is one of the oldest government-owned public utility organisations in the world The first telegraph line was opened in 1851 between Calcutta and Diamond Harbour.

There were 19,844 telegraph offices (including 3,285 licensed telegraph offices working under Railways and Canal Administrations) as on 31 March 1976 About 6 52 inland telegrams were booked during 1976-77 earning a revenue of Rs 31 33 crores During the Fifth Plan period about 7,000 new telegraph offices are proposed to be opened, to reach more and more rural areas Of this, 2,820 had already been opened as on 31 March 1977

**Teleprinters**

The Hindustan Teleprinters Ltd., a public sector undertaking, was established at Madras in 1960 to manufacture teleprinters. It produced 6,632 units of teleprinters in 1976-77 The company sold equipment worth Rs 547 lakhs during 1976-77. It also started producing electrical typewriters

**Telex Service**

The national telex service was opened in 1963. The first Devanagari telex was inaugurated in New Delhi in 1969 With the commissioning of teleprinter exchanges at important cities, printed messages can be sent and received directly from one subscriber to another in any part of the country. Telex service was available between 70 cities These cities had an installed capacity of 16,720 telex connections

**Facsimile Service**

Facsimile service was introduced in 1969 for the first time in the country at Madras, facilitating simultaneous printing of a newspaper at Madras and Coimbatore It was extended to Bangalore in 1970. Now the service is available to Hyderabad also

**TELEPHONE SERVICES**

India had a 50-line telephone exchange in Calcutta as early as 1881, five years after invention of telephone by Graham Bell. The first telephone exchange with automatic lines was installed at Simla in 1913 The next development came in 1930 when the first carrier system was installed between Delhi and Agra. During the second world war, telecommunication services were strengthened with high grade trunk lines extending to over 12,800 km. During this period, the Government took over the licensed private telephone companies. At the time of Independence, there were 321 exchanges and 86,000 telephones It was after 1951, however, that telephone services made rapid progress The number of telephone exchanges has increased by more than nine times and the number of telephones by more than eleven times since 1951 as shown in table 21 3 In early 1977 there were 5,819 exchanges with a total capacity of over 18 8 lakh lines having 16 13 lakh working connections.

**TABLE 21.3 Telephones Statistics**

*(as on 1 April)*

| | 1951 | 1961 | 1971 | 1975 | 1976 |
|---|---|---|---|---|---|
| No of telephone exchanges | 540 | 1,374 | 3,967 | 4,905 | 5,240 |
| No of telephones (in lakhs) | 1 68 | 4 63 | 13 00 | 17 44 | 19 14 |

The first computer-controlled electronic telephone exchange is to be set up for commercial trial at Rajauri Garden in Delhi by early 1978.

The number of long distance public call offices was 6,633 on 31 March 1977. The number of trunk calls increased from 71 lakhs in 1950-51 to 15.5 crores in 1976-77. The telephone revenue during the same period increased from Rs 9 crores to Rs 365 crores.

STD Service

The subscriber trunk dialling service (STD), first introduced between Kanpur and Lucknow in 1960, is now in operation on 241 both way and 20 one way routes There are 13 trunk automatic exchanges in the country. International subscriber dialling has been introduced on part time basis in Delhi-London and Bombay-Delhi routes. Subscribers of Delhi and Bombay can now dial London without the help of an operator.

'On Demand' Trunk Service

The 'On Demand' trunk service was introduced for the first time on Bombay-Bangalore route in 1971. Since then the service has been extended to 774 trunk routes in the country.

Ship-to shore Service

Ship-to-shore service is available at Bombay, Calcutta and Madras, under which subscribers can have telephonic contacts with ships at sea within 750 km.

OYT Scheme

The 'own your telephone' scheme (OYT), introduced in 1949, now covers all the telephone systems in the country.

A new scheme called "advance deposit scheme" was launched with effect from 1 September 1975. According to this scheme payment of advance deposit is necessary before a demand for the telephone connection can be registered and the scheme applies to new demands as well as demands registered earlier. The amount of deposit varies from Rs 800 to Rs 5,000 and is adjusted towards telephone charges as and when a telephone is sanctioned

Telephone Manufacture

The India Telephone Industries Ltd. (ITI), Bangalore, a public sector undertaking, was set up in 1948 to manufacture telecommunication equipment. It has factories now at Bangalore, Naini, Rae Bareli, Palghat and Srinagar

During 1975-76, the ITI manufactured more than four lakh telephone instruments besides other equipment. The total sales of ITI durnig the period amounted to Rs 88 crores including exports worth Rs 1 73 crores.

The ITI designed, manufactured and delivered the microwave equipment for the second international satellite earth station at Dehra Dun It has thus become one of the few manufacturers in the world for this type of equipment.

OVERSEAS COMMUNICATIONS

India's external telecommunication services are operated by the Overseas Communications Service (OCS) with its headquarters at Bombay.

The OCS operates through four international gateway centres located at Bombay, Calcutta, Madras, and New Delhi and provides overseas telegraph, telephone, telex, radio-photo and leased telegraph channel services It also arranges broadcast transmission and reception facilities for the government and news agencies

With the commissioning of India's first satellite earth station,

Vikram, at Arvi near Pune in 1971, the OCS is also operating through INTELSAT satellite positioned over the Indian Ocean. The second satellite earth station near Dehra Dun was commissioned in February 1977

Through a network of satellite and high frequency radio circuits, the OCS provides telegraph services to all countries, telephone services to 192 countries, telex services to 185 countries and radio-photo to 58 countries.

Leased Teleprinter Channels

The Overseas Communication Service leases teleprinter channels for the exclusive use of private subscribers. Several international airline companies, government departments, foreign embassies and international business houses are using this facility. There were 68 leased teleprinter channels and 3 high speed data circuits in operation as on 1 September 1977.

Programme Transmissoins

Facilities are provided on the overseas telephone system for the transmission and reception of programmes consisting of voicecasts by correspondents of broadcasting organisations for use on their broadcast networks

Press Broadcasts

The Overseas Communication Service provides multi-address teleprinter news broadcast transmissions, on behalf of the Ministry of External Affairs, simultaneously to 66 Indian Consular posts around the world. Point-to-point telegraph news transmissions are also provided to a national news agency from Bombay.

The OCS also carries out reception of foreign radio-telegraph press broadcasts on behalf of news agencies

## WIRELESS PLANNING AND CO-ORDINATION

The Wireless Planning and Co-ordination Wing of the Union Ministry of Communications is responsible for all matters concerning the International Telecommunications Union, Geneva, a specialised UN agency. It also functions as the radio regulatory authority for all radio usages in the country and in that capacity assigns radio frequencies and issues operating licences to all official and non-official wireless users Cases of radio interference are investigated and resolved through national and, if necessary, through international co-ordination Problems about frequency usages for satellite communication and other space systems are also co-ordinated both at national and international levels

Monitoring Organization

The Monitoring Organisation of the Communications Ministry has a network of monitoring stations set up for frequency management and implementation of radio regulations Fourteen such stations are functioning at Ahmedabad, Ajmer, Bangalore, Bombay, Calcutta, Delhi, Gorakhpur, Goa, Hyderabad, Madras, Nagpur, Ranchi, Shillong and Srinagar In addition, field monitoring stations have also been established at Darjeeling, Jullundur and Mangalore for effective links in very high frequency bands

Three units have been set up at Bombay, Calcutta and Delhi for carrying out region-wise inspection of licensed and authorised stations to ensure that they conform to the terms and conditions of the licences. Three radio noise survey units have also been established at Delhi, Hyderabad and Calcutta to investigate the quantum of man-made radio noise responsible for interference with radio communications and suggest counter measures.

# LABOUR

In 1971, the working population of India was about 18.05 crores or 32.92 per cent of the total population of the country. Of the working population only ten per cent was in the organised sector and the rest in the traditional sector. Cultivators and agricultural labourers formed the bulk of the traditional workers—43.38 per cent and 26.32 per cent respectively. Table 22.1 gives the distribution of working population according to activity and sex.

However, reliable data are available only for the organised sector of India's economy. Most of the acts passed by the government for the welfare of workers relate to workers in this sector. A number of social security schemes are also in operation for these workers. These include factory acts, wage acts, and social security schemes like employees' state insurance, employees' provident funds, death relief and family pension for workers and their families. Some acts and rules have also been framed for the unorganised sector. The Minimum Wages Act, 1948 is also applicable to many categories of workers in this sector

In the organised sector of India's economy, the largest number of workers are employed in factories[1]. In 1974, the estimated average daily employment in working factories, for which figures were available, stood at 56 8 lakhs (provisional).

According to 1974 daily employment figures, Maharashtra had the largest number of factory workers (10,93,000) followed by West Bengal (8,84,000), Gujarat (5,23,000), Tamil Nadu (5,16,000) and Uttar Pradesh (4,66,000).

The average daily number of workers employed in all mines in 1974 was 7,46,000 (2,96,000 underground, 2,22,000 open-cast working and 2,28,000 surface). The corresponding figures for coal mines covered by the Mines Act, 1952, for 1974 was 5,04,864 (2.67,446 underground, 77,481 open-cast working and 1,59,937 surface).

WORKING CONDITIONS

Working conditions in factories are regulated by the Factories Act, 1948 which prescribes a 48-hour week for adult workers and forbids the employment of children under 14 in any factory Minimum standards of lighting, ventilation, safety, health and welfare services which the employers must provide in their factories have also been laid down. Factories with more than 250 employees have to provide canteens for their workers

WAGES AND EARNINGS

Table 22 2 gives the average per capita annual earnings of factory workers drawing less than Rs 400 per month in different states and union territories.

---

[1]Under the Factories Act, 1948, a factory is defined as any premises including the precincts thereof where 10 or more workers are working or were working on any day of the preceding twelve months and in any part of which power is used for the manufacture Where power is not used the number of workers should be 20 or more

A worker is defined in the Act as a person, employed directly or through any agency, whether for wages or not, to any manufacturing process, or in cleaning any part of the machinery or premises used for a manufacturing process or in any other kind of work incidental to or connected with the manufacturing process, or the subject of the manufacturing process

TABLE 22.1

DISTRIBUTION OF WORKING POPULATION (1971 Census)

*(In lakhs)*

| Category | Male | | Female | | Total | |
|---|---|---|---|---|---|---|
| | Number | Percentage share in total male population | Number | Percentage share in total female population | Number | Percentage share in total population |
| Total population | 2,841 | 100 00 | 2,641 | 100 00 | 5,482 | 100 00 |
| A Total working population | 1,492 | 52 51 | 313 | 11 86 | 1,805 | 32 92 |
| (i) Cultivators | 690 | 24·28 | 93 | 3 52 | 783 | 14 28 |
| (ii) Agricultural labourers | 317 | 11 16 | 158 | 5 98 | 475 | 8 66 |
| (iii) Livestock, forestry, fishing, hunting and plantations, orchards and allied activities | 35 | 1 24 | 8 | 0 30 | 43 | 0 78 |
| (iv) Mining and quarrying | 8 | 0·28 | 1 | 0 05 | 9 | 0 17 |
| (v) (a) Household industry | 50 | 1 77 | 13 | 0·50 | 63 | 1·16 |
| (b) Other than household industry | 99 | 3 47 | 9 | 0·33 | 108 | 1 96 |
| (vi) Construction | 20 | 0 71 | 2 | 0 08 | 22 | 0 40 |
| (vii) Trade and commerce | 95 | 3 34 | 6 | 0 21 | 101 | 1·83 |
| (viii) Transport, storage and communications | 43 | 1·50 | 1 | 0 05 | 44 | 0 80 |
| (ix) Other Services | 135 | 4·76 | 22 | 0 84 | 157 | 2 88 |
| B. Non-working population | 1,349 | 47 49 | 2,328 | 88 14 | 3,677 | 67 08 |

TABLE 22.2

AVERAGE PER CAPITA ANNUAL EARNINGS OF FACTORY WORKERS

(In rupees)

| State/Union Territory | 1961 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973[1] | 1974[1] |
|---|---|---|---|---|---|---|---|---|---|---|
| Andhra Pradesh | 1,149 | 1,454 | 1,601 | 1,830 | 2,088 | 2,117 | 2,339 | 2,430 | 1,881 | 2,603 |
| Assam | 1,599 | 2,130 | 2,097 | 2,108 | 2,340 | 2,363 | 2,484 | 2,481 | 2,449 | 2,457 |
| Bihar | 1,856 | 2,050 | 2,196 | 2,432 | 2,486 | 2,712 | 2,752 | 2,630 | 2,539 | 2,176 |
| Gujarat | 1,702 | 2,340 | 2,663 | 2,696 | 2,643 | 2,820 | 2,763 | 2,886 | 3,393 | 2,670 |
| Haryana | — | 1,712 | 2,064 | 2,219 | 2,436 | 2,597 | 2,569 | 2,848 | 3,013 | 3,466 |
| Himachal Pradesh | 1,288 | 2,115 | 2,950 | 2,851 | 2,521 | 2,691 | 2,849 | 2,849[3] | 2,849[3] | 3,343 |
| Jammu & Kashmir | — | 978 | 1,209 | 1,532 | 1,805 | 1,630 | 1,695 | 2,081 | 2,246 | 2,785 |
| Karnataka | 1,375 | 1,840 | 1,758 | 2,294 | 2,088 | 2,881 | 2,654 | 2,698 | 2,877 | 2,749 |
| Kerala | 1,152 | 1,724 | 2,009 | 2,125 | 2,467 | 2,419 | 2,565 | 2,555 | 2,788 | 2,957 |
| Madhya Pradesh | 1,816 | 2,118 | 2,308 | 2,691 | 2,939 | 2,912 | 3,013 | 3,175 | 3,175 | 3,892 |
| Maharashtra | 1,775 | 2,480 | 2,676 | 2,826 | 2,903 | 3,030 | 3,090 | 3,249 | 3,461 | 3,355 |
| Orissa | 1,180 | 2,000 | 2,325 | 2,333 | 2,143 | 2,899 | 3,242 | 3,590 | 3,323 | 3,303 |
| Punjab | 1,174[2] | 1,636 | 1,659 | 1,690 | 2,070 | 2,159 | 2,219 | 2,409 | 2,467 | 2,577 |
| Rajasthan | 761 | 1,412 | 1,882 | 1,853 | 2,003 | 2,486 | 2,507 | 2,814 | 3,229 | 3,229 |
| Tamil Nadu | 1,465 | 2,032 | 2,204 | 2,297 | 2,442 | 2,583 | 2,670 | 2,860 | 2,824 | 2,759 |
| Tripura | — | 1,271 | 1,897 | 1,945 | 2,010 | 2,223 | 2,790 | 2,221 | 2,420 | 2,824 |
| Uttar Pradesh | 1,264 | 1,826 | 1,978 | 2,157 | 2,200 | 2,293 | 2,483 | 2,563 | 2,867 | 3,091 |
| West Bengal | 1,410 | 2,204 | 2,175 | 2,382 | 2,675 | 2,761 | 3,028 | 3,452 | 3,657 | 3,856 |
| Andaman & Nicobar Islands | 1,234 | 1,621 | 1,566 | 1,791 | 2,024 | 2,170 | 2,315 | 2,115 | 2,129 | 3,262 |
| Delhi | 1,655 | 2,321 | 2,499 | 2,788 | 2,860 | 2,885 | 3,040 | 3,047 | 3,229 | 3,276 |
| Goa, Daman & Diu | — | 2,105 | 1,751 | 2,242 | 2,075 | 2,305 | 2,204 | 2,555 | 2,988 | 3,223 |
| Pondicherry | — | — | — | — | — | 2,427 | 2,673 | 2,776 | 3,462 | 3,374 |

[1]Provisional
[2]Includes Haryana also
[3]Repeated.

Money Earnings

The variation in money earnings is shown in Table 22.3.

TABLE 22 3
INDEX OF MONEY EARNINGS OF WORKERS

(1961-100)

| Description | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General index of earnings | 109 | 114 | 128 | 139 | 151 | 160 | 170 | 180 | 185 | 199 | 216[1] | 207[1] |

[1]Provisional

Regulation of Wages

The payment of wages is governed by the Payment of Wages Act, 1936 and the Minimum Wages Act, 1948 as amended subsequently. The Payment of Wages (Amendment) Act, 1976 extends to the whole of India and applies to persons employed in any factory as defined in the Factories Act, 1948 and in any railway, receiving wages and salaries which average below Rs 1,000 a month The Act also provides for payment of wages, after obtaining the written permission of the employee, either by cheque or by crediting the wages in his bank account

Employers cannot withhold the wages earned by workers nor can they make any unauthorised deductions Industrial establishments employing less than 1,000 workers must pay wages before the expiry of the 7th day and in other cases before the expiry of the 10th day after the last day of the wage period Fines can be imposed for only those acts of omission which have been approved by the appropriate government and must not exceed an amount equal to three paise in a rupee of the wage payable Fines cannot be recovered in instalments or after the expiry of 60 days from the day of act or omission for which the fine is imposed If the payment of wages is delayed or wrongful deductions are made, the workers or their trade unions can file claim. The payment of overtime in scheduled employments is governed by the Minimum Wages Act, 1948

Minimum Wages

Employers in India are free to hire an employee on any terms which the employee will accept. However, the Minimum Wages Act, 1948 seeks to prevent exploitation of labour It also empowers the appropriate government, central or state, to fix minimum wages of employees working in industries specified in the Schedule Wage rates under the Act have been fixed and notified for various scheduled employment by the central and state governments in their respective spheres

The Act also provides for revision of minimum wages already fixed, after suitable intervals Recently minimum wages have been revised in scheduled employment in agriculture and in various classes of mines.

Equal Remuneration

Through an ordinance on 26 September 1975, which became an Act on 11 February 1976, equal remuneration was assured to men and women workers throughout the country.

The Act provides for the payment of equal remuneration to men and women workers for the same work or work of similar nature. It prevents discrimination on the ground of sex against women in the matter of employment and for matters connected therewith except where the employment of women in such work is prohibited or restricted by or under any law for the time being in force To provide increasing employment opportunities for women, a provision for the setting up of advisory committees by the state governments has been made.

The Act has so far been enforced in several spheres, including plantations (covered under the Plantations Labour Act, 1951), local authorities, central and state governments, banks, educational institutions, mines, hospitals, hotels and restaurants, manufacture of textiles and textile products and wholesale and retail trade.

**Bonus**

Bonus is paid to the workers under the Payment of Bonus Act, 1965 which is applicable to every factory and establishment in which twenty or more persons are employed on any day during the accounting year. The Act required the employers to pay a minimum bonus regardless of profits.

An amending measure in 1972 raised the minimum bonus from 4 to 8-1/3 per cent of a worker's salary or Rs 80 (Rs 50 in the case of a child worker), whichever was higher, for the accounting year commencing on any day in 1971.

Under another amending Act which became operative with effect from 25 September 1975, bonus was payable only if the establishment had some allocable surplus over a cycle of four years, even if it be a marginal amount. A minimum bonus was, however, payable for the accounting year commencing on any day in the year 1974 even if there was no allocable surplus. Moreover, the employees of banking companies and the Industrial Reconstruction Corporation of India were excluded from the ambit of the Act. The provision for payment of bonus under agreements on a formula different from that outlined in the Act was deleted.

An ordinance was promulgated on 3 September 1977, amending the Bonus Act in respect of the accounting year commencing on any day in the year 1976. It provided for a minimum bonus of 8.33 per cent irrespective of the fact whether the establishment has allocable surplus or not. The maximum bonus would be twenty per cent. Banking companies and the Industrial Reconstruction Corporation of India would be covered The provision for payment of bonus under agreements on a formula different from that outlined in the Act has been restored. This would be subject to certain conditions and the prior approval of the government.

**Occupational Wage Surveys**

Surveys are conducted from time to time to collect information about occupational wage rates and earnings data, extent of overtime and incentive bonus schemes for workers employed in major manufacturing, mining and plantation industries. The first survey was conducted in 1958-59 and its general report published in 1963. The second was carried out in 1963-65 and a summary report of its findings was released in 1971. In view of the usefulness of the data collected during the first two surveys, the National Commission on Labour recommended the conduct of similar surveys periodically. Accordingly, the Labour Bureau is conducting in phases the Third Occupational Wage Survey in 81 industries belonging to the manufacturing, mining and plantation sectors. The first three phases of the surveys, covering 45 industries, have been completed. Currently 36 industries belonging to the other factory industries are being covered.

**Contract Labour**

The Contract Labour (Regulation and Abolition) Act, 1970, which became applicable to the whole of India in February 1971, provides for the regulation of employment of contract labour in certain establishments and for its abolition in certain circumstances. It also fixes

responsibility on the principal employer for payment of wages in case of defaults.

The Labour Bureau has conducted special studies on the extent and nature of contract labour in 26 different industries so far. From 15 February 1975, the employment of contract labour has been prohibited in several categories of work in the coal mining industry Employment of contract labour has also been prohibited from March 1977 for sweeping, dusting and watching of buildings owned or occupied by establishments in respect of which the appropriate government under the act is the central government

**Bonded Labour**

The bonded labour system in the country has been abolished through the Bonded Labour System (Abolition) Act 1976, to prevent the economic and physical exploitation of the weaker sections of the people. Under the Act which extends to the whole country, the bonded labour system stands abolished and every bonded labourer stands freed and discharged from any obligation to render any bonded labour. Accordingly, all contracts for bonded labour, attachments for recovery of bonded debt, etc., stand null and void. Even the bonded labourer detained in civil prison, whether before or after the judgment, stands released. No person, who has been freed and discharged under this Act, shall be evicted from any homestead or other residential premises which he had occupied immediately before the commencement of this Act as a part of the consideration for the bonded labour. Government, through a series of rules and regulations, is trying to rehabilitate economically and socially the freed bonded labour.

A Central Review Committee has been set up under the chairmanship of the Labour Secretary for purpose of coordinating the activities of the various ministries of the Government of India and the state governments and for collecting data and statistics relating to bonded labour. The state governments have also been requested to set up similar committees to consider and assess the progress made. As on 31 July 1977, of the 97,396 bonded labourers identified in the country, 95,997 had been released and 23,720 rehabilitated.

## INDUSTRIAL RELATIONS

**Industrial Disputes**

The Industrial Disputes Act, 1947 is the principal central legislation which provides a machinery for the settlement of industrial disputes In addition, the Code of Discipline (1958) and the Industrial Truce Resolution (1962) also help in the promotion and maintenance of good industrial relations 3,68,449 (provisional) mandays were lost due to strikes and lockouts in the central sphere during 1976 as compared to 15,52,919 days in 1975.

**Industrial Employment Standing Orders**

Model rules have been framed by the central government under the Industrial Employment (Standing Orders) Act, 1946 for adoption by industrial establishments employing one hundred or more workers to ensure industrial peace. An amendment of the Act in 1961 empowered the appropriate government to extend it to establishments employing less than 100 workers. Another amendment in 1963 made the Model Standing Orders, framed by the appropriate government, operative in all industrial establishments covered by them until the Standing Orders framed by the industrial establishments are certified.

The Act now applies to all establishments in Andhra Pradesh, Gujarat, Maharashtra and West Bengal employing 50 workers or

more In Assam, it covers establishments (except mines, quarries, oil-fields and railways) which employ ten workers or more. In Tamil Nadu, all factories registered under the Factories Act, 1948 are covered. In U.P., the Act has been extended to all member establishments of the Employers' Association of Northern India and of U.P. Oil-mill Owners Association, electric supply undertakings, water works and industrial establishments engaged in glass industry, oil mills registered as 'factories', establishments employing more than 50 workers in textiles, engineering, printing presses, ginning and pressing, shellac industries, flour, dal and rice mills, and all industrial establishments voluntarily applying for certification of Standing Orders.

Code of Discipline

The Code of Discipline, as evolved at the Indian Labour Conference, in 1958, has so far been accepted, apart from all the central employers' and workers' organisations, by 180 employers and 166 trade unions which are not members of any of the central employers' and workers' organisations. The code is also applicable to public sector undertakings run as companies and corporations except those under the Ministry of Defence, Railways and Ports and Docks. The Department of Defence Production has agreed to apply the code, with some clarifications, to its public sector undertakings run as companies and corporations. The code has also been applied, with certain modifications, to the insurance industry, the State Bank of India and the Reserve Bank of India. However, the code could not be applied to other banks in the absence of any agreement between the employers' and employees' representatives in respect of clarifications pertaining to the criteria for recognition of unions

The Code of Discipline requires employers and workers to utilise the existing machinery for the settlement of disputes and avoiding direct action The implementation organisations, at the centre and in the states, assist in settling disputes The central organisations of employers and workers and public sector undertakings, except the AITUC, have also set up committees or cells to screen cases for dissuading their affiliate members from filing appeals in higher courts against the judgments of industrial tribunals or labour courts in keeping with the letter and spirit of the code. A similar procedure for screening cases of appeals proposed to be filed by central undertakings has been in operation since 1964.

Industrial Truce

To ensure industrial truce during emergency in the country, an Industrial Truce Resolution was adopted by the central organisations of employers and workers in 1962 It laid down that there will be no interruption or slowing down of production, on the other hand, production will be maximised and defence effort promoted in all possible ways. A standing committee with the Union Minister of Labour and Employment as chairman was set up in August 1963 to review the working of the Truce Resolution It has since been merged with the Central Implementation and Evaluation Committee.

National Arbitration Promotion Board

A National Arbitration Promotion Board was set up by the Government of India in 1967 to promote voluntary arbitration as a means for settling of industrial disputes The Board comprises representatives of the employers' and workers' organisations, public sector undertakings and central and state governments. All the state governments as well as union territory administrations, except Uttar Pradesh and

West Bengal, have either set up State Arbitration Promotion Boards or made some other institutional arrangements for the purpose. The Governments of West Bengal and Uttar Pradesh also have completed all procedural arrangements for setting up such boards in their states

**Grievance Procedure**

The Code of Discipline envisages that managements will establish a grievance procedure which will ensure full investigation of disputes, leading to a settlement

Periodic studies are conducted to review the progress made in the matter of establishment of the procedure. The sixth study in the series, which was brought out in uly 1975, showed a nimprovement in the establishment of grievance procedure in coal and non-coal mines, including oil fields in the private sector. Work on the 7th study in the series, covering the period June 1974 to June 1976, is in progress

**Works Committees**

Works Committees have been set up in industrial establishments employing one hundred or more workers. They consist of representatives of employers and workmen and provide a forum for negotiations at the factory level On 30 June 1977, Works Committees were functioning in 643 establishments in the central sector.

**Workers' Participation**

On 31 October 1975, government introduced through a resolution a scheme of workers' participation in industry at the shop-floor and plant levels The main objective of the scheme is to generate a spirit of participation in the employees, to obtain maximum production and efficiency. The scheme envisages setting up of shop councils and joint councils in the manufacturing and mining industries whether in the public, private or cooperative sectors employing 500 or more workers

A scheme has also been introduced for workers' participation in management in commercial and service organisations having large scale public dealings It is applicable to organisations like hospitals, posts and telegraphs offices, railway stations/booking offices, banks, road transport undertakings, state electricity boards, public distribution system, etc, in the public sector and which employ at least 100 persons

**Workers' Representation in Management**

The central government has decided to introduce a scheme for the appointment of workers' representatives on the boards of management of a few public sector undertakings on a trial basis. As a beginning, a worker-director has been appointed in the Hindustan Antibiotics Ltd, Pimpri, and in the nationalised banks.

**Conciliation and Adjudication**

The Central Industrial Relations Machinery, also known as the Central Chief Labour Commissioner's Organisation, is responsible for the prevention, investigation and settlement of industrial disputes under the Industrial Disputes Act, 1947. It also enforces some labour laws in the central sphere

When industrial disputes cannot be resolved by mutual negotiations, the conciliation machinery steps in. It is compulsory for the conciliation officer to hold conciliation proceedings when an industrial dispute exists or is apprehended in a public utility service and a notice under section 22 of the Industrial Disputes Act, 1947 has been received, but it is optional in the case of other industrial establishments.

The Industrial Disputes Act also provides for voluntary or com-

compulsory adjudication of industrial disputes. Eight Industrial Tribunals-*cum*-Labour Courts have been set up to adjudicate disputes in the central sphere. Of these, three are at Dhanbad, two at Bombay and one each at Calcutta, Jabalpur and Delhi. The states have their own tribunals and labour courts. The Industrial Tribunal-*cum*-Labour Court at Delhi, under the Delhi Administration, also deals with some cases in the central sphere. National tribunals are set up by the central government when required.

To promote better industrial relations, the central government set up a National Commission on Labour in 1966 with Dr P. B Gajendragadkar as chairman. Its report was presented to the government in 1969. Government has accepted several recommendations made by the commission and taken follow-up action

**Lay Off and Retrenchment**

In order to prevent avoidable hardships to the employees and to maintain higher tempo of production and productivity, the Industrial Disputes Act, 1947, has been amended to prevent lay-offs and retrenchments Under the new Act, known as the Industrial Disputes (Amendment) Act, 1976, reasonable restrictions have been put on an employer's right to lay off, retrenchment and closure. Now the employer has to seek prior approval of the appropriate government by giving at least a three months' notice before the intended closure, stating clearly the reasons for laying off, retrenchment and closing of industrial establishment where three hundred or more workmen are employed In the interest of rehabilitation of workmen and maintenance of supplies and services essential to the life of the community, the Act also provides for restarting the undertakings which have already closed down otherwise than on account of circumstances beyond the control of the employer. Under the new Act no workman employed in any industrial establishment who has been in continuous service for not less than one year, shall be retrenched without giving three months' notice in writing, indicating the reasons for retrenchment He is also entitled to compensation equivalent to 15 days of every completed year of continuous service or any part thereof in excess of six months.

**National Labour Institute**

The National Labour Institute, a registered society under the overall control of the Ministry of Labour, was set up in New Delhi on 1 July 1974 to disseminate knowledge of the necessary techniques and skills to those required to handle labour relations at central and state levels on a tripartite basis. It is an inter-disciplinary action-*cum*-research body mainly concentrating on problems of rural landless labourers participative management and industrial democracy and dissemination of participative management spirit in government system. The Institute is also involved in inter-related and inter linked-activities of education and training, research, consultancy and publications It brings out two monthly journals—National Labour Institute Bulletin and Awards Digest, besides publishing occasional papers.

## TRADE UNIONS

The Indian Trade Unions Act, 1926 provides for the registration of trade unions. Any seven or more memebrs of a trade union may, by subscribing their names to the rules of the trade union and otherwise complying with the provisions of the Act with respect to registration apply for registration of the trade union under the Trade Unions Act The Act gives protection to registered trade unions in cerain cases

against civil or criminal action.

Table 22.4 shows the number and membership of the registered trade unions in India.

TABLE 22 4
REGISTERED TRADE UNIONS AND MEMBERSHIP

| Particulars | Workers' Unions | | | Employers' Unions | | |
|---|---|---|---|---|---|---|
| | 1961-62 | 1972[1] | 1973[1] | 1961-62 | 1972[1] | 1973[1] |
| Number of unions on register | 11,416 | 22,268[2] | 23,162[2] | 198 | 385[2] | 408[2] |
| Number of unions submitting returns | 6,954 | 3,502[4] | 4,512[5] | 133 | 31[4] | 63[5] |
| Membership of unions submitting returns (000's) | 3,960 | 1,787[4] | 3,174[5] | 18 | 3[4] | 34[5] |

[1]Provisional [2]Estimated [3]Excludes Kerala

[4]Figures for Assam, Bihar, Kerala, Maharashtra, Rajasthan, Uttar Pradesh West Bengal and Delhi are excluded

[5]Figures for Andhra Pradesh, Assam, Bihar, Himachal Pradesh, Kerala, Rajasthan, Uttar Pradesh, West Bengal and Delhi are excluded

## SOCIAL SECURITY

Some of the important schemes which seek to provide social security to the workers against such contingencies as ill health, industrial accidents, maternity, etc , are described below.

### Employees' State Insurance Scheme (ESI)

The Employees' State Insurance Act, 1948, which till recently covered non-seasonal factories using power and employing 20 or more persons, is now being gradually extended by the state governments to smaller factories employing 10-19 persons, non-power using factories, hotels, restaurants, shops, cinemas, etc , employing 20 or more persons. The Act provides for medical care, cash allowance during sickness, maternity, employment injury and pension for dependents on the death of a worker because of injury. Full medical care, short of hospitalisation, is also being progressively made available to the members of the family of the insured persons.

On 30 June 1977, there were 60 ESI hospitals with 10,248 beds, 25 ESI annexes with 437 beds and 865 dispensaries including mobile/part time and employer's utilisation dispensaries. The total number of employees covered were about 54 lakhs and the total beneficiaries were about 2 14 crores

### Employees' Provident Funds

Retirement benefits are available to the employees under the Employees' Provident Funds and Miscellaneous Provisions Act, 1952. On 30 June 1977, it covered 154 industries all over India except Jammu and Kashmir[1] The Act does not apply to establishments registered under the Co-operative Societies Act, 1912, and employing less than 50 persons and working without the aid of power

The employers contribute 6¼ per cent of the basic wage and dearness allowance, including the cash value of food concessions and retaining allowance payable to the employees. The employees make a matching contribution The government have enhanced the rate of contribution to 8 per cent in the case of 89 industries employing 50 or more persons

[1]The state of Jammu and Kashmir enacted a separate legislation in 1961.

At the end of June 1977, the subscribers numbered 85,03,915. The receipts in provident funds, including interest earned, totalled Rs 4,776.82 crores while the amount refunded was Rs 2,023.28 crores.

**Employees' Deposit-linked Insurance Scheme**

Another important social security measure, the Employees' Deposit-Linked Insurance Scheme, 1976 was introduced for the members of the Employees Provident Fund and the exempted Provident Funds with effect from 1 August 1976. On the death of a member, the person entitled to receive the Provident Fund accumulations will be paid an additional amount, equal to the average balance in the provident fund account of the deceased during the preceeding three years, if such average balance was not below Rs 1,000 during the said period. The maximum amount of benefit payable under the Scheme is Rs 10,000 and the employee does not have to make any contribution for it.

On 31 May 1977, 104 claims were settled and a sum of Rs 7.54 lakhs paid to the claimants.

**Gratuity Scheme**

Under the Payment of Gratuity Act, 1972, employees in factories, mines, oil-fields, plantations. ports, railways, motor transport undertakings, companies, shops or other establishments are entitled to gratuity. This is payable at the rate of 15 days' wages for each completed year of service, subject to a maximum of 20 months' wages. However. in the case of seasonal establishments, the employer shall pay the gratuity at the rate of 7 days' wages for each season. The Act does not affect the right of an employee to receive better terms of gratuity under any award or agreement or contract with the employer.

**Death Relief**

A Death Relief Fund was set up in January 1964 to ensure a minimum of Rs. 500 as financial help to the nominees or heirs of deceased members of unexempted establishments. The limit was raised to Rs 750 on 1 August 1969. The benefit has been extended to cover nominees or heirs of such persons whose pay does not exceed Rs 500 per month at the time of death.

**Family Pension**

To provide long-term financial security to the families of industrial employees in the event of their premature death, the Coal Mines Family Pension Scheme, 1971, and the Employees' Family Pension Scheme, 1971 were introduced from 1 March 1971. They apply to employees covered under the Coal Mines Provident Fund and Miscellaneous Provisions Act, 1948 and the Employees' Provident Funds and Miscellaneous Provisions Act, 1952. The schemes are financial by diverting a portion of the employers' and employees' contributions to the Coal Mines Provident Fund and the Employees' Provident Funds with an additional contribution by the central government. The operating cost of the two schemes is also borne by the central government. At the end of September 1976, there were 32 24 lakh members of the Employees' Family Pension Scheme and 5.31 lakh members of the Coal Mines Family Pension Scheme

**Salesmen Act**

The Sales Promotion Employees (Condition of Service) Act, 1976 gives benefits under various labour laws to persons engaged in sales promotion activities. Besides regulating their service conditions, the Act extends the benefits of labour laws relating to security of service, minimum wages, maternity benefits. payment of bonus, gratuity and compensation, provisions for leave, issuing of appointment letters, etc

The Act which came into force from 6 March 1976, is at present applicable to employees engaged in the pharmaceutical industry.

**Coal Mines Provident Fund**

Provident Funds in coal mines have been set up under the Coal Mines Provident Fund and Miscellaneous Provisions Act, 1948. Except a few excluded categories, all persons employed in or connected with a coal mine, either directly by employers or through contractors, have to become subscribers to the fund when they have put in 60 days' attendance (above-ground miners) and 48 days' attendance (underground miners) in a calendar quarter.

They are compulsorily required to contribute 8 per cent of their emoluments The employers also have to make a matching contribution Subscribers can make a voluntary contribution up to 8 per cent in excess of their compulsory contribution They can get non-recoverable advances for house-building, financial life insurance policies, meeting the expenses in connection with the marriage of daughter of for post-matriculation education of children, and for purchasing shares of consumers' co-operative societies and co-operative credit societies.

As on 31 December 1976, there were 6 62 lakh subscribers to the provident funds in 1,061 coal mines and ancillary organisations.

**Coal Mines Provident Fund Deposit-Linked Insurance Scheme**

Deposit-Linked Insurance has been introduced from 1 August 1976 for the employees of the coal industry Under the scheme, a person entitled to receive provident fund dues on the death of an employee who is a member of Coal Mines Provident Fund, is also entitled to get, in addition to the amount of provident fund, an amount equal to the average of balance in the account of the deceased during the preceding three years (provided that such balance is not less than Rs 1,000), subject to a maximum of Rs 10,000 No contribution is to be paid by the employee. The expenditure on the scheme and on its administration is to be contributed by the employers and the Central Government in the ratio of 2 . 1.

**Coal Mines (Attendance) Bonus**

A bonus scheme has been framed under the Coal Mines Provident Fund and Miscellaneous Provisions Act, 1948 to provide an incentive to workers to be more regular in attendance Under the scheme workers who put in specified days of attendance were paid quarterly bonus at ten per cent of the basic earnings in addition to wages From January 1973, the scheme has been amended and a worker is now entitled to bonus for the period for which he actually attends the mine

As on 31 December 1976 the scheme covered 625 collieries all over India, except those in Jammu and Kashmir.

**Workmen's Compensation**

The Workmen's Compensation Act, 1923, requires the employers to compensate the workers against occupational diseases and injuries arising out of and in the course of employment. The Act has prescribed separate scales of compensation for death, permanent total disablement, permanent partial disablement and temporary disablement. It now covers workers employed in certain specified hazardous occupations and drawing wages not exceeding Rs 1,000 per month.

**Maternity Benefits**

The Maternity Benefit Act, 1961, regulates the employment of women in certain establishments for certain periods before and after child

birth and provides for maternity and other benefits. The Act applies to mines, factories, circus industry and plantations, including any such establishments belonging to government, except the employees who are covered under the Employees' State Insurance Act, 1948. It can be extended to other establishments by state governments.

LABOUR WELFARE

To enable workers to work in congenial surroundings, certain amenities such as canteens, rest shelters, creches, medical aid and education and recreational facilities have been provided in factories, mines and plantations covered by the Factories Act, 1948, the Mines Act, 1952, the Plantations Labour Act, 1951 and the Bidi and Cigar Workers (Conditions of Employment) Act, 1966. Contract labour is also provided similar amenities under the Contract Labour (Regulation and Abolition) Act, 1970. Factories employing 500 or more workers have to appoint welfare officers to look after the welfare of the workers.

Welfare funds in central undertakings were created on a voluntary basis in 1966. Their scope is being enlarged to meet the social and educational needs of the workers.

Mines

For the welfare of mine workers, welfare funds have been set up in coal, mica, iron ore, limestone and dolomite mines. The finances for the funds are raised through the levy of a cess on the coke and coal despatches from the collieries, an *ad valorem* cess as customs duty on mica exports, a cess as duty of customs on export of iron ore and duty of excise on internal consumption and a cess on the limestone and dolomite consumed by the iron ore and steel plants and cement and other factories. The welfare activities include housing, public health and sanitation, medical, educational and recreational facilities for workers and their dependents. It also covers provisions of monetary and other benefits under the Fatal and Serious Accident Benefit Schemes.

Dock Labour

Various welfare measures are in operation for the dock workers in Bombay, Calcutta, Cochin, Kandla, Madras, Marmagao, Vishākhapatnam and other ports. These include housing, medical care, tuition fee concession for children and recreation and canteen facilities. Fair price shops and consumers' co-operative societies are also operating in some of the ports.

Plantation Labour

Under the Plantations Labour Act, 1951, all plantations provide housing accommodation to their resident workers and their families and maintain hospitals or dispensaries for them. Some of the plantations also run elementary schools for the education of the labourers' children. Training in useful handicrafts, such as tailoring, knitting, weaving and basket-making and recreational facilities are provided in some of the tea estate centres with the help of the Tea Board.

The Act was amended in 1960 to check fragmentation of plantations by employers to escape their liabilities.

Motor Transport Workers

The Motor Transport Workers' Act, 1961 provides for the welfare of motor transport workers and for the regulation of their working conditions. The various schemes in operation include canteens, rest rooms, uniform hours of work and leave. The Act is administered by the state governments which have framed rules for its enforcement

**WORKERS' EDUCATION**

The object of the workers' education scheme is to create a well-informed and responsible labour force capable of organising and running trade unions on sound lines The Central Board for Workers' Education, consisting of representatives of central and state governments, organisations of employers and workers and educationists, is a registered society for implementing the scheme. It has established 39 regional centres to cover important industrial centres It also gives grants-in-aid to trade unions and institutions for workers' education.

The programme of workers' education is divided into three stages. Under the first stage, training is given to Education Officers who are wholetime employees of the Board. In the second stage, workers sponsored by trade unions are trained for three months by the Education Officers. These workers are called worker-teachers. In the third stage, worker-teacher conducts classes for other workers at their places of employment By 31 July 1977, the Board had trained 31,59,125 workers, including 43,630 worker-teachers

**WORKERS' SAFETY**

**National Safety Council**

The National Safety Council was set up in March 1966 Its main function is to conduct seminars, organise film shows in factories and distribute posters on the subject of safety

In January 1977, the Council's membership consisted of 894 corporate members and 140 individual members

**National Safety Awards**

Various schemes for the grant of National Safety Awards to factories, covered by the Factories Act, 1948, and ports have been instituted for good safety records Each scheme consists of cash prizes and certificates of merit Seventy two factories, three stevedoring firms and two port authorities were given the awards for the year 1974 in 1976.

**Safety in Mines**

The Mines Act, 1952 and the rules, regulations and bye-laws made thereunder, provide for the regulation of labour and safety in mines. The fatality per thousand persons in coal mines declined from 0.73 in 1956 to 0 56 (provisional) in 1976 The rate for all mines was 0 51 (provisional) in 1976 as against 0 53 in 1956

**Shram Vir Awards**

Shram Vir Awards were instituted in 1965 for workers in factories, mines, plantations and docks They are given in recognition of meritorious performance—such as suggestions leading to higher productivity or economy or greater efficiency. Forty one workers were given Shram Vir Awards for the year 1975 in 1976.

**AGRICULTURAL LABOUR**

According to the 1971 Census, agricultural labourers in India numbered 4.75 crores representing 26 33 per cent of the total work force in the country. The corresponding figures in 1961 were : 3.15 crores and 16 71 per cent This increase in the number of agricultural labour has been accompanied by a decrease in the number of cultivators from 9 95 crores in 1961 to 7 82 crores in 1971

The average annual income of an agricultural labour household in India during 1950-51 was Rs 447 00, during 1956-57 it fell to Rs 437 47 but increased to Rs 660.19 during 1963-64 The 25th round of the National Sample Survey has revealed that during the period July 1970 to June 1971, the average earnings as wages per man-day for the country as a whole were Rs 2 03 for the landless worker and Rs 1 90 for small cultivators

The Minimum Wages Act, 1948 and the Trade Unions Act, 1926

are applicable to agricultural labour. Agricultural farms run on commercial lines are also covered by the Industrial Disputes Act, 1947. The Employees' Provident Fund and Family Pension Fund Act, 1952 is applicable to agricultural labour engaged in specified plantations. Workers employed in farming by tractor or other mechanical power or by electricity are already covered by the Workmen's Compensation Act, 1923.

The government has set up a standing committee on agricultural labour to review the existing legislative and other provisions for the welfare of agricultural labour and to suggest a comprehensive legislation on the subject

Rural Labour Enquiry

The Rural Labour Enquiry was conducted between 1963-65 through the National Sample Survey. Data were collected on consumption expenditure, income, employment, unemployment, earnings and indebtedness of rural labour households (including agricultural labour households). The field work of the Second Rural Labour Enquiry was completed in June 1975. The data are under scrutiny by the Labour Bureau.

## EMPLOYMENT

At the beginning of the Fourth Plan the number of people employed in the organised sector was 166 22 lakhs The figure was 196 88 lakhs in March 1975 showing an increase of about 26 58 lakhs. The bulk of the increase was in the public sector which accounted for 30.66 lakhs. However, as accurate estimates of employment and unemployment in the country were not available, the National Sample Survey undertook a comprehensive labour survey the results of which are awaited

At the beginning of the Fifth Plan in 1974, the number of people employed in the organised sector was 192 8 lakhs The figure was 206 7 lakhs (Provisional) in March 1977, showing an increase of about 13.9 lakhs. The bulk of the increase was in the public sector which accounted for 13 3 lakhs.

Despite the substantial increase in the number of jobs in the organised sector, unemployment has grown in the absolute as well as proportionate terms

The strategy adopted for tackling the problem of unemployment and poverty in the past was mainly through emphasis on industrialisation and special employment programmes as appendages to the Five Year Plans. Experience has shown that such a strategy has not borne fruit The government, therefore, has now pledged to remove destitution within a definite time frame of ten years. Keeping in view this pledge, government propose to adopt an employment oriented strategy in which primacy will be given to the development of agriculture, agro-industries and small and cottage industries, especially in rural areas. The next Five Year Plan which is currently being formulated, will have a high employment content Concrete policies and programmes are proposed to be formulated as part of the Plan

National Employment Service

The National Employment Service (NES), started in 1945, consists of a net-work of employment exchanges manned by trained personnel The exchanges assist all employment seekers, specially the physically handicapped, ex-servicemen, scheduled castes and scheduled tribes,

university alumni and professional and executive personnel. The NES also carries out other functions, such as vocational guidance and employment counselling for better utilization of human resources, the collection and dissemination of employment market information and conducting studies in the field of employment and occupational research, which provide the basic data for framing policy on some aspects of manpower

Under the Employment Exchanges (Compulsory Notification of Vacancies) Act, 1959, it is obligatory for all establishments in the public sector and non-agricultural establishments in the private sector employing 25 or more workers to notify their vacancies (with certain exemptions) to the employment exchange and supply periodic information

The number of employment exchanges in the country on 31 December 1976 was 582 including 65 University Employment Information and Guidance Bureaux. Table 22 5 gives figures relating to the activities of the exchanges

TABLE 22 5 ACTIVITIES OF EMPLOYMENT EXCHANGES

| Year | No of exchanges[2] | No of registrations | No of applicants placed in employment | No of applicants on the live register | Monthly average no of employers using the exchanges | No of vacancies notified |
|---|---|---|---|---|---|---|
| 1956 | 143 | 16.69,985 | 1,89,855 | 7,58,503 | 5,346 | 2,96,618 |
| 1961 | 325 | 32,30,314 | 4,04,707 | 18,32,703 | 10.397 | 7,08,379 |
| 1966 | 396 | 38,71,162 | 5,07,342 | 26,22,460 | 12,908 | 8,52,467 |
| 1971 | 437 | 51,29,857 | 5,06,973 | 50,99,919 | 12,910 | 8,13,603 |
| 1972[1] | 453 | 58,26,916 | 5,07,111 | 68 96,238 | 13 154 | 8,58,812 |
| 1973 | 465 | 61,45,445 | 5,18,834 | 82,17,649 | 13,366 | 8,71,398 |
| 1974 | 481 | 51 76,274 | 3,96,898 | 84,32,869 | 12,175 | 6,72,537 |
| 1975 | 504 | 54,43,493 | 4,04,056 | 93,26,289 | 11,124 | 6 81,614 |
| 1976 | 517 | 56,19,397 | 4,96,781 | 97.84,332 | 13,277 | 8,45,575 |

[1]Includes 15 professional and executive employment offices

[2]Excludes 165 University Employment Information and Guidance Bureaux

Administration

The day-to-day administrative control over the employment exchanges was transferred to the state governments in November 1956 From April 1969, the states were also made financially responsible for the manpower and employment schemes The role of the central government is limited to policy-making, co-ordination of procedure and standards, and the development of various programmes on an all-India basis

Vocational Guidance

Vocational guidance and employment counselling services are provided to youth (applicants without any work experience) and adults (with specific work experience). By the end of 1976, vocational guidance units were functioning at 235 employment exchanges, apart from 65 university employment information and guidance bureaux

In order to divert educated youth to channels of gainful employment, vocational guidance and career advising programmes of the Directorate-General of Employment and Training (DGE&T) have been expanded and streamlined A career study centre at the Central Institute for Research and Training provides career literature for the

occupational orientation of the youth and other guidance seekers. CIRTES also imparts training in employment services, procedures, vocational guidance and seminars for the personnel of national employment service. It is also engaged in conducting research studies in several areas and fields of employment service.

Exchanges for Physically Handicapped

There are 16 special exchanges for the physically handicapped. There are 16 special exchanges for the physically handicapped. Bombay, Calcutta, Chandigarh (one for Punjab and another for Haryana), Delhi, Hyderabad, Jabalpur, Jaipur, Kanpur, Madras, Patna, Simla and Trivandrum. Till December 1976, 58,063 applicants had registered themselves with them, out of whom 15,809 persons had been placed in employment.

Nine vocational rehabilitation centres for the physically handicapped are functioning at Ahmedabad, Bombay, Calcutta, Delhi, Hyderabad, Jabalpur, Kanpur, Ludhiana and Madras. Till December 1976, they admitted 13,579 persons, out of whom 2,988 were rehabilitated.

Training Programmes

In an endeavour to build up the career of young persons in their adolescence, the DGE&T has evolved various training programmes. These are formulated within the national framework as far as possible and also in collaboration with foreign countries.

STUDIES SURVEYS

During 1975-76, the DGE&T completed the survey to ascertain the proportion of employed persons on the live register, the survey of cohorts of graduates in the employment and several surveys for determining the trend of emerging manpower in different industries and in different occupations. Surveys to ascertain the recruitment practices in the private sector and the employability of the tribal trainees are being continued

Craftsmen's Training

Industrial training institutes have been set up all over the country to impart skills in 31 engineering and 21 non-engineering trades to youngmen and women in the age group 15-25. At present, 356 such institutes are providing free training facilities to about 1.56 lakh craftsmen.

To promote the efficiency of craftsmen-trainees, the DGE&T has introduced aptitude tests which are applied for the selection of craftsmen-trainees in engineering trades During 1975, aptitude tests for 1,16,091 candidates were conducted in 15 engineering trades for the selection of trainees in industrial training institutes, including Model Training Institutes in states The aptitude testing programme has also been extended to industries in different regions for selecting suitable candidates as apprentices under the Apprentices Act, 1961

The duration of the courses varies from one to two years for engineering trades, but is one year for all non-engineering trades Successful candidates are awarded National Trade Certificates

Besides 52 trades, the state governments and union territories have introduced training in additional trades to meet the requirements of the new industries established in their areas.

The educational qualification for admission in the industrial training institutes in most of the trades under the Craftsmen's Training Scheme is 8th standard or two classes below the matriculation or its equivalent. For some trades, such as electronics, radio and TV, electricians, drafts-

men (mechanical/civil) and surveyors, the minimum qualification is matriculation or its equivalent with mathematics and science.

The industrial training institutes have also started a scheme to train Other Ranks in the Indian Army to facilitate their rehabilitation in civil life on their release or retirement from service. Under the scheme introduced from August 1972, provision has been made to train 1,000 army personnel every year.

**Craft Instructors Training**

Six central training institutes at Bombay, Calcutta, Hyderabad, Kanpur, Ludhiana and Madras train craft instructors required by the Industrial Training Institutes and the Apprenticeship Training Establishments. The six institutes, with an admission capacity of about 1,084 impart training in a number of trades. Facilities for the training of instructors have also been provided in chemical group of trades at the Bombay institute, and in hotel and catering at the Hyderabad institute. Facilities for training in printing, weaving and farm mechanics trades are also being provided at institutes in Kanpur, Bombay and Ludhiana respectively.

**Advanced Training to Craftsmen**

The Advanced Training Institute, set up at Madras in 1971, conducts advanced training courses for highly skilled craftsmen from industry in specialised areas like tool designing, tool and die making, measurement techniques, heat treatment and welding During the Fifth Plan, satellite centres of advanced training are being set up at various Central Training Institutes to meet the local needs of advanced skill training

**Advanced Vocational Training System**

The Advanced Vocational Training System provides for training of highly skilled workers and technicians in a variety of advanced and sophisticated skills not available from other vocational training programmes. The system would be introduced in the Central Training Institutes for Instructors located at Bombay, Calcutta, Hyderabad, Kanpur and Ludhiana, Advanced Training Institute, Madras and 16 selected Industrial Training Institutes located at Ambattur, Bangalore, Vadodara, Dhanbad, Durgapur, Faridabad, Gauhati, Jabalpur, Jammu, Jodhpur, Kalamessary, Meerut, Patiala, Pune, Rae-Bareily and Vishakhapatnam. These institutes are being modernised and developed into Model Training Institutes to enable them to conduct various advanced courses under the scheme The Advanced Training Institute at Madras will function as the Apex and the five Central Training Institutes where the system will be introduced will function as Regional Institutes for the country as a whole

An advanced training institute for electronics and process instrumentation has been established at Hyderabad to train highly skilled technicians in fields such as domestic/industrial/medical/electronics and process instrumentation

**Foremen's Training**

An institute to train foremen was established in Bangalore in 1971. It trains existing and potential shop foremen and supervisors in theoretical and managerial skills and workers from industry in advanced technical skills The facilities generated at this institute are being made available through satellite centres at four Central Training Institutes. A part-time evening course has also been introduced on Modelar system

**Apprenticeship Training Scheme**

The Apprentices Act, 1961 makes it obligatory for employers in specified industries to engage apprentices. The training consists of basic training followed by on-the-job or shop-floor training in accordance with standards prescribed by the government in consultation with the Central Apprenticeship Council. So far 217 industries and 103 trades have been brought under the Act. The Apprentices (Amendment) Act, 1973 provides for reservation of seats for scheduled caste and scheduled tribe candidates as well as for improving the employment potential of engineering graduates and diploma holders.

The Apprenticeship Rules, 1962, have been amended vide Apprenticeship Rules (Amendment) 1975 to cover the training of graduate engineers and diploma holders under the provisions of Amended Apprentices Act, 1973.

**Part-time Training to Industrial Workers**

Along with the expansion of facilities for the training of craftsmen in institutes and through the apprenticeship programme, evening classes have been organised to improve the standards of industrial workers who may enter the industry without any systematic training.

Industrial workers, irrespective of their age, but possessing two years' workshop experience in a particular trade and sponsored by their employers are eligible for admission to this course. The period of training is two years and the fee charged is Rs 2 per month.

**Vocational Training Research**

A Central Staff Training and Research Institute was set up at Calcutta in 1970 for developing indigenous training techniques The Institutes conducts training programmes for officers and staff of the central and state governments as well as from industry who control, regulate and direct training programmes. It also carries out research in trades and training techniques, prepares training aids, and advises industry on industrial training methods.

## COMMITTEE ON AUTOMATION

A Committee on Automation was set up by the central government in 1969 with Shri R. Venkataraman as Chairman to review the effect of automation in enterprises in which it has already been introduced. It was also to suggest criteria for determining areas and fields in which automation, including computers, may be permitted and to recommend safeguards for avoiding or minimising any harmful social effects of automation Its report was presented to the government in 1972. Consequent on the resignation of Shri R. Venkataraman, government appointed Professor V M. Dandekar as Chairman of the Committee. The Committee in its report recommended establishment of computer service centres for users and a procedure for introduction of computers in industrial establishments.

# 23 HOUSING

The problem of housing in India is a complex one, requiring finances on a huge scale, and is dependent for its solution on the concerted efforts of individuals, cooperatives and central and state governments to be planned and executed over a number of years There is acute shortage of housing in urban and rural areas and much of the available accommodation is qualitatively sub-standard The shortage in urban areas has been largely on account of considerable increase in population since 1921. the steady shift of population from the rural to the urban areas, the haphazard growth of towns owing to lack of proper town planning and the comparative inability of private enterprise to keep pace with the growing demand

Though no precise data are available about the shortage of housing in the country, the 1971 census placed the shortage at 1.43 crore units, 27 lakhs in urban areas and 1 16 crores in rural areas A study by the National Buildings Organisation, after taking into account the increase in households owing to the natural growth of population and net addition to the housing stock during 1971-74, estimated the housing shortage on the eve of the Fifth Plan at 1 56 crore units—38 lakhs in urban areas and 1.18 crores in rural areas

According to the 1971 census, the usable housing stock was 8 25 crore units (6 84 crores in 1961) for the entire population of 54 8 crores divided into about 7.7 crore households Of these, 6 64 crore units (5 71 crores in 1961) were in rural areas and 1 61 crore units (1 13 crores in 1961) in urban areas.

POLICY

The Fifth Plan seeks to achieve the following objectives in the housing sector . (i) preservation and improvement of the existing housing-stock; (ii) provision of house-sites to landless labourers as a part of the Minimum Needs Programme; (iii) continuance of existing schemes to provide subsidised houses to certain weaker sections of the community; (iv) expansion of support to institutional agencies such as Housing and Urban Development Corporation and Housing Boards under the state governments to enable them to provide assistance for the benefit of low income and middle income groups and (v) intensification of research in and development of cheap building materials

Although it is the endeavour of the government to solve the housing problem as expeditiously as possible within the available resources, it is not possible at this stage to provide a house to every family at public cost, involving expenditure of several hundreds of crores of rupees, in view of the competing claims of other priority problems facing the country.

To improve the housing condition, specially for the lower income group, the Government of India has introduced from 1952 several social housing schemes providing subsidised housing on a limited scale for the economically weaker sections of the community like slum-dwellers and industrial and plantation workers It provides financial assistance to state governments for undertaking composite projects of land acquisition and house construction to cater to the needs of low and middle income groups.

**HOUSING FINANCE**

Most of the funds for housing are provided by the central and state governments. The Life Insurance Corporation supplements these funds. Funds are also provided by the Housing and Urban Development Corporation which advances loans to state governments, State Housing Boards and Housing and Urban Development Authorities for the execution of their housing projects. Housing finance is also being provided by scheduled commercial banks.

**Investment and Achievements**

During the period starting from the First Five Year Plan upto the end of the Fourth Five Year Plan, a total of Rs 469.99 crores was spent in the public sector on various social housing schemes. In the Fifth Five Year Plan, an outlay of Rs 600.92 crores has been provided for the same purpose.

The Life Insurance Corporation advanced loans amounting to Rs 237.30 crores to the various state governments, including the Delhi Development Authority, upto 1976-77. Since its inception, the Housing and Urban Development Corporation has sanctioned loans amounting to Rs 279.45 crores for 654 schemes in 189 cities, involving construction of 2,14,938 dwellings and development of 44,641 plots of various categories The bulk of it was intended for the weaker sections of the society.

Upto the end of September 1977, 7,61,550 housing units were constructed under the various social housing schemes.

**RESEARCH**

Research in building techniques and new methods of house construction is carried out by the National Buildings Organisation (NBO) which was set up by the Government of India in 1954 as an advisory and co-ordinating body for all technical matters concerning building and housing The NBO also sponsors research work on various aspects of building construction, improvement of utilization of building materials and on the sociological and economic aspects of housing. Several rural housing wings at Vallabh Vidya Nagar (Anand), Bangalore, Calcutta, Chandigarh, New Delhi, Srinagar and Jodhpur are functioning under NBO for research, training and extension work in rural housing and village planning.

The Organisation, which is the national agency for collection of building and housing statistics, also functions as the United Nations Regional Housing Centre for ESCAP region.

The NBO has set up a permanent building exhibition in Nirman Bhavan, New Delhi, where building materials and products available in the market, and also new and improved materials evolved by research organisations are on display.

**PRODUCTION OF MATERIALS**

The Hindustan Housing Factory at New Delhi, a Government of India company, apart from manufacuring pre-fabricated houses, specialises in producing several other items, such as pre-fabricated reinforced cement concrete components, pre-stressed cement concrete transmission poles, foam concrete panels and partition and insulation blocks It undertakes wooden joinery work and has standardised certain pre-cast building components for use by individual house-builders and construction agencies

The pre-fabricated components for industrial structures by the Factory have not only effected saving in steel and resulted in quicker construction but also brought about an overall saving in cost to the extent of 26 per cent.

The company is at present executing works of fully or partially pre-fabricated houses and industrial structures at eight sites in different parts of the country, besides its own works in the Factory.

CONSTRUCTION AGENCY

The National Buildings Construction Corporation, New Delhi, a public sector undertaking, undertakes specialised construction works both inside and outside the country The Corporation is also engaged in export promotion efforts and has recently been awarded the work of construction of an airport at New Ghat, Libya, valuing about Rs 36 crores The Corporation is also executing a contract valuing about Rs 90 crores for construction of a hospital complex and housing units in Libya, and another contract for construction of sewerage works in Iraq valuing about Rs 4 crores It also owns a mechanised brick plant in Delhi

A brief resume of the progress of various social housing schemes since their inception is given below

State Sector Schemes

The Integrated Subsidised Housing scheme, which came into operation in 1952, is intended for low-paid industrial workers and other economically weaker sections of the community. The income limit for eligibility for initial allotment of houses built under the scheme is Rs 500 per month, subject to payment of some additional charges by allottees in the income group between Rs 351 and Rs 500 per month. Up to 30 September 1977, 1,84,980 houses had been constructed.

The Low Income Housing scheme, started in 1954, enables persons (or their cooperatives) whose income does not exceed Rs 7,200 per annum to get loans for constructing houses. The amount of the loan is restricted to 80 per cent of the cost of construction of a house (including the cost of developed land), subject to a maximum of Rs 14,500. Up to 30 September 1977, construction of 3.21,361 houses had been completed

The Middle Income Group Housing scheme, launched in 1959, is generally financed from the funds made available by the Life Insurance Corporation as loans to state governments In the union territories, the funds are provided by the central government Loans are available under the scheme to individuals whose income is in the range of Rs 7,201 to Rs 18,000 per annum for the construction of houses The loans are restricted to 80 per cent of the cost of a house, subject to a maximum of Rs 27,500 Loans are also given to eligible persons for the purchase of ready built houses Up to 30 September 1977, 38,974 houses had been constructed

The Village Housing Project scheme provides for the grant of loans for construction of houses by villagers to the extent of 80 per cent of the cost of construction, subject to a maximum of Rs 5,000 and also for providing streets and drains to improve the environmental hygiene of the villages Up to 30 September 1977, 65,959 houses, about 280 km of streets and 213 km of drains had been completed

The Rental Housing scheme for state government employees was introduced in 1959. Under the scheme, state governments construct residential accommodation and rent it out to their employees. Up to 30 September 1977, 30,143 houses had been completed

The Land Acquisition and Development scheme, started in 1959, enables state governments and administrations in the union territories to acquire and develop land in urban areas so that developed plots can

be made available at reasonable prices to intending house builders, particularly those in the lower income groups. Its object is to stabilise land prices, rationalise urban development and promote self-contained composite housing colonies. Up to 30 September 1977, over 12,842 hectares of land had been acquired and over 6,527 hectares developed by various state governments.

Central Sector Schemes

The subsidised housing scheme for plantation workers is in operation since 1956. Under the scheme, the central government pays 50 per cent loan and 37½ per cent grant for construction of accommodation for allotment free of rent to plantation labour, which is concentrated in six states, namely, Assam, Karnataka, Kerala, Tamil Nadu, Tripura and West Bengal. Cooperatives of plantation workers receive financial assistance up to 90 per cent of the approved cost of a project : 65 per cent as loan and 25 per cent as subsidy. The number of plantation workers eligible for housing facilities is estimated to be 4,86,695, of whom 3,30,291 have been provided with housing facilities.

The central government also has a scheme under which it grants loans to its employees, including those governed by the Payment of Wages Act, on the basis of a welfare scheme sanctioned in 1956 for building houses and for the purchase of ready built houses. Till 30 September 1977, loans totalling Rs 118 31 crores had been approved.

House sites for Landless Workers

The scheme for provision of house sites to landless workers in rural areas is a part of the National Minimum Needs Programme. It has been transferred from the central sector to the state sector with effect from the date of commencement of the Fifth Plan, i.e. 1 April 1974.

Eighteen states and six union territories are at present implementing the scheme and they have altogether been able to allot more than 70 lakh house sites (including undeveloped sites) upto 31 August 1977. The governments of Manipur, Meghalaya, Nagaland, Arunachal Pradesh, Lakshadweep and Mizoram have reported that they do not have this problem in rural areas

## URBAN DEVELOPMENT

In India, the concept of planned urban development is of recent origin Although development schemes for urban areas were drawn up and implemented from the beginning of the Five Year Plans, the need for planned urban development was recognised only in the Third Plan when an allocation of Rs 3 crores was made by the central government for giving grants to state governments for this purpose Till March 1969, the scheme for urban development continued as a centrally-sponsored programme. From 1 April 1969, the preparation of Master and Regional plans was transferred to state governments with the central government acting only in an advisory capacity. In the Fourth Plan, an allocation of Rs 73 47 crores was made for the urban development programme An outlay of Rs 90 crores has been made in the Fifth Plan for the Housing and Urban Development Corporation under the central sector.

TOWN AND COUNTRY PLANNING ORGANISATION

The Town and Country Planning Organisation is a technical advisory body on all matters pertaining to urban and regional development It provides technical guidance and assistance to all state governments

and union territories. It also undertakes project work for development on consultancy basis from public undertakings and local bodies.

**Socialisation of Urban Land**

The Urban Land (Ceiling and Regulation) Act came into force on 17 February 1976.

It seeks to curb speculation and to implement the policy of socialisation of urban land. The Act puts a ceiling on the ownership of urban vacant land on a graded basis. It also empowers the concerned state governments to acquire vacant land in excess of the ceiling limits, prescribes compensation payable therefor, grants exemption from the ceiling provisions to certain specific categories of vacant land and restricts the plinth area of future construction of dwelling units.

While the responsibility for administering the Act vests in the state government, with a view to facilitating expeditious implementation of the objectives of the Act, the Government of India have set up a central coordination committee, with the representatives of the states and union territories serving on it This Committee reviews the progress in the implementation of the Act and suggests measures for resolving the difficulties, if any, that may be encountered by the states. A series of guidelines clarifying the intent and purport of the provisions of the Act have been issued to the state governments who, in turn have laid down further guidelines

Statements submitted by the holders of excess vacant land have been taken up for scrutiny. In the States of Gujarat, Karnataka, Maharashtra and Uttar Pradesh, excess of vacant land has vested in the State Land held for industrial purposes is being exempted; also land held in excess of the ceiling limit is exempted on grounds of undue hardship and in public interest. The notices/application for permission to transfer vacant land/urban property are being processed by the competent authorities expeditiously

Some states have taken complementary measures, e g, the West Bengal Government has enacted the West Bengal Urban Land Taxation Act, 1976

**Important Programmes**

Among the important programmes on which work is in progress is the National Capital Region Plan around Delhi which covers an area of about 30,000 sq km in the union territory of Delhi and parts of Haryana, Rajasthan and Uttar Pradesh. The Plan envisages integrated regional development programmes for drinking water supply, drainage, power supply, community facilities and services over the whole region For 1974-75, a sum of Rs 36 lakhs was provided for the scheme of Development of the National Capital Region. Out of this, Rs 34 lakhs were given as loan assistance to the constituent states of National Capital Region, namely, Haryana, Rajasthan and Uttar Pradesh for supplementing the investments made by them for development of ring towns of Gurgaon, Alwar and Meerut In 1975-76 and 1976-77, further loans of Rs 1 34 crores and Rs 1 75 crores respectively were released for these towns. The release in 1976-77 included Rs 10 lakhs for Panipat Work is also under way in the region covering parts of Bihar, Madhya Pradesh, Orissa and West Bengal

A network of mass rapid transit system (MRTS) for Delhi urban area has been identified by the metropolitan transport team of the Planning Commission. The Metropolitan Transport Project (Railways) is conducting techno-economic and engineering feasibility studies

of the MRTS network. The Town and Country Planning Organisation is carrying out traffic studies for MRTS.

Development of Metropolitan Cities

For development of metropolitan cities and areas of national importance, a new scheme has been included in the Fifth Plan. Under the scheme, the central government will supplement the efforts of state governments in this direction. An outlay of Rs 149.51 crores has been provided for the Fifth Plan period. For 1974-75, a sum of Rs 14.84 crores was provided under the scheme. Out of this, Rs 14.51 crores were given as loan assistance to the governments of Andhra Pradesh, Maharashtra, Tamil Nadu and West Bengal for supplementing the investments made by them for the integrated development of their capital towns and to the governments of Madhya Pradesh and Punjab for supplementing the investments made by them for the integrated development of their cities of Bhopal and Indore and Ludhiana. The loan assistance given in 1975-76 was Rs 18.89 crores to 13 cities. In 1976-77, Rs 29.25 crores was released to 17 cities.

In Delhi, an Urban Art Commission has been set up for preserving, developing and maintaining the aesthetic quality of urban and environmental design within Delhi.

Slum Clearance and Improvement Scheme

The Slum Clearance and Improvement scheme was introduced in 1956 as a centrally-sponsored programme under which financial assistance was given to states and union territories for the clearance and improvement of slum areas and rehousing of slum dwellers whose income does not exceed Rs 350 per month. From 1 April 1969 the scheme was transferred to states.

Environmental Improvement of Slums

To bring about improvement of environmental conditions in slum areas, a programme known as the Central Scheme for Environmental Improvement in Slum Areas was launched in 1972 in ten cities, namely, Ahmadabad, Bombay, Bangalore, Delhi, Hyderabad, Kanpur, Lucknow, Madras, Nagpur and Pune. During 1973-74, ten more cities, viz., Calcutta, Cochin, Cuttack, Gauhati, Indore, Jaipur, Ludhiana, Patna, Rohtak and Srinagar were also covered under the scheme The Bustee Improvement scheme in Calcutta was also made part of the programme The concerned state governments were given full financial assistance for the provision of drinking water, sewerage and drains community bath and latrines, street lighting and widening and paving of existing lanes in slum areas Till 31 March 1974, 854 projects worth over Rs 24.60 crores had been sanctioned. A sum of over Rs 20 23 crores was released to the states in respect of these projects Out of this, an expenditure of over Rs 14 21 crores had been incurred by the end of March 1974.

The scheme has been transferred from the central sector to the state sector from 1 April 1974 to be implemented by state governments as one of the Minimum Needs Programme. During the Fifth Plan period, it is proposed to cover cities with population of three lakhs and above, or one city in each state where the scheme has not so far been extended.

Jhuggi and Jhonpri Removal Scheme

The Jhuggi and Jhonpri Removal scheme is designed to provide alternative accommodation to unauthorised occupants of government and public lands in Delhi and New Delhi 1,78,800 tenements and plots

had been constructed/developed under the scheme by September 1977.

**Delhi Land Acquisition Scheme**

A scheme known as the Large Scale Acquisition, Development and Disposal of Land is in force in Delhi. Under the scheme, land measuring about 14,990 hectares has been acquired so far. Of this, 10,705 hectares have been allotted to the Delhi Development Authority and about 3,470 hectares have been allotted to various government, semi government and other organisations

In 1976, 118 Bills were enacted as laws and in 1977 (up to 30 September) 33 bills were enacted as laws. The scope and purpose of some of the important laws are given below. List of Bills enacted as laws during the period are given in tables 24.1 and 24.2

*The Burmah Shell (Acquisition of Undertakings in India) Act,* 1976

Provides for acquisition of the undertaking in India of the Burmah Shell Oil Storage and Distributing Company of India Limited, a foreign company, carrying on its business in India.

*The Voluntary Disclosure of Income and Wealth Act,* 1976

Provides for the Voluntary Disclosure of Income and Wealth Scheme in order to fight tax evasion and other economic offences. Under this Act, a person may before 1 January 1976, disclose voluntarily any income or wealth which he has failed to disclose earlier under the Income tax or the Wealth Tax Act for any assessment year.

*The Indian Railways (Amendment) Act,* 1976

Amends the Indian Railways Act, 1890, to include some special procedure for the speedy disposal of goods, the delivery of which is not taken by consignees within seven days of the arrival of such goods at notified railway stations.

*The Election Laws (Extension to Sikkim) Act,* 1976

Seeks to extend the Representation of the People Act, 1950, and the Representation of the People Act, 1951, to the State of Sikkim.

*The Imports and Exports (Control) Amendment Act,* 1976

Amends the Imports and Exports (Control) Act, 1947, to provide for enhanced imprisonment and also heavier fines depending upon the gravity of the offence committed.

*The Smugglers and Foreign Exchange Manipulators (Forfeiture of Property) Act,* 1976

Provides for the forfeiture of illegally acquired properties of smugglers and foreign exchange manipulators, as part of the Government's drive against them

*The Bonded Labour System (Abolition) Act,* 1976

Provides for the abolition of bonded labour system, with a view to preventing the economic and physical exploitation of the weaker sections of the society. It also provides for the establishment of vigilance committees at district and subdivision levels in every State for the effective implementation of the Act.

*The Conservation of Foreign Exchange and Prevention of Smuggling Activities (Amendment) Act,* 1976

Seeks to ammend the Conservation of Foreign Exchange and Prevention Smuggling Activities Act, 1974, for modifying the maximum period of detention under the Act to one year or two years, as the case may be, or the period during which the Emergencies proclaimed in 1971 and 1975 are both in operation, whichever period expires later

*The Regional Rural Banks Act,* 1976

Provides for the establishment of Regional Rural Banks to meet credit and other requirements of the rural people particularly small and marginal farmers, agricultural labourers, artisans and small entrepreneurs These Banks are to provide funds for the development of agriculture, trade, commerce, industry and other productive activities in the rural areas They are to work in collaboration with the cooperative institut ons and similar agencies already existing in the rural sector

*The Payment of Bonus (Amendment) Act,* 1976

Amends the Payment of Bonus Act, 1965 to provide for the payment of bonus to persons employed in certain establishments on the basis of profits or on the basis of production or productivity. It restricts the payment of minimum bonus to the availabilty of allocable surplus and at four per cent of the employee's wages

*The Press Council (Repeal) Act,* 1976

Repeals the Press Council Act, 1965, and provides for the dissolution of the Press Council established under the Act

*The Equal Remuneration Act,* 1976

Provides for the payment of equal remuneration to men and women workers for same work or work of similar nature with a view to prevent discrimination on the ground of sex, against women in the matter of employment and other related matters

*The Motor Vehicles (Amendment) Act,* 1976

Seeks to amend the Motor Vehicles Act, 1939, to remove constraints on the movement of goods by road and to provide for the grant of national permits for public carriers to operate throughout the country or through contiguous States

*The Prevention of Publication of Objectionable Matter Act,* 1976

Provides against the printing and publication of incitement to crime and other objectionable matter. Objectionable matter would include among other things, any words, signs or visual representations which are defamatory of the President, the Vice-President, the Prime Minister any other member of the Council of Ministers of the Union, the Speaker of the Lok Sabha and Governors of States

*The Parliamentary Proceedings (Protection of Publication) Repeal Act*, 1976

Seeks to repeal the Parliamentary Proceedings (Protection of Publication) Act, 1956, that gave immunity from legal action to the press for reporting the proceedings of Parliament.

*The House of the People (Extension of Duration) Act*, 1976

Provides for the extension of the present Lok Sabha by one year beyond 18 March 1976.

*The Urban Land (Ceiling and Regulation) Act*, 1976

Provides for a ceiling on vacant land in urban agglomeration, in order to prevent the concentration of urban land in the hands of a few persons and speculation and profiteering thereby and to bring about an equitable distribution of land in urban agglomerations for subserving the common good. It also provides for the acquisition of such land in excess of the ceilnig limit and to regulate the construction of buildings on such land.

*The Prevention of Food Adulteration (Amendment) Act*, 1976

Amends the Prevention of Food Adulteration Act, 1954, to provide deterrent punishment to adulterators including life imprisonment with fine. For the first time, manufacture of adulterants has also been brought within the purview of the Act.

*The Foreign Contribution (Regulation) Act*, 1976

Regulates the acceptance and utilisation of foreign contribution or foreign hospitality by certain persons or associations. It seeks to ensure that parliamentary institutions, political associations and academic and other voluntary organisations as well as individuals working in important areas of national life function in a manner consistent with the values of a sovereign democratic republic. The Act provides three kinds of restrictions. One is total prohibition of acceptance of foreign contribution or foreign hospitality. The second is acceptance with prior permission of the Central Government and the third is legal obligation to send intimation and render accounts to the Central Government.

*The Comptroller and Auditor-General's (Duties, Powers and Conditions of Service) Amendment Act*, 1976

Amends the Comptroller and Auditor-General's (Duties, Powers and Conditions of Service) Act, 1971, so as to relieve the Comptroller and Auditor-General of the responsibility for preparation and submission of annual finance accounts of the Union or of the State concerned.

*The Departmentalisation of Union Accounts (Transfer of Personnel) Act*, 1976

Provides for the transfer of officers serving in the Indian Audit and Accounts Department to any Ministry, Department or office of the

Central Government for facilitating the efficient discharge by such Ministry, Department or office, of the responsibility in compiling the accounts thereof.

*The Standards of Weights and Measures Act,* 1976

Seeks to establish standards of weights and measures and to regulate inter-State trade in goods sold or distributed by weight, measure or number.

*The Coal Mines (Nationalisation) Amendment Act,* 1976

Amends the Coal Mines (Nationalisation) Act, 1973, to provide for the termination of all privately held coal mine leases, except those held by privately owned steel companies.

*The Marriage Laws (Amendment) Act,* 1976

Amends the Hindu Marriage Act, 1955, and the Special Marriage Act, 1954, to liberalise the provisions relating to divorce to enable expeditious disposal of proceedings and to remove certain anamolies and handicaps that had come up after the passing of those Acts. The periods of waiting in relation to divorce have been either reduced or eliminated so as to quicken the process

*The Pharmacy (Amendment) Act,* 1976

Seeks to amend the Pharmacy Act, 1948, to provide for wider representation on the Pharmacy Council of India by providing for the inclusion in that Council of the representatives of the Union territories as also of the University Grants Commission and All-India Council for Technical Education and to enable the Council to discharge its functions effectively

*The Additional Emoluments (Compulsory Deposit) Amendment Act,* 1976

Amends the Additional Emoluments (Compulsory Deposit) Act, 1974, to extend the duration of the Act by one year.

*The Tea (Amendment) Act,* 1976

Amends the Tea Act, 1953, to take over the management of any sick tea undertaking for a maximum period of seven years. Also empowers the Government to order an investigation into the working or a sick tea undertaking and decide on its liquidation or reconstruction.

*The National Library of India Act,* 1976

Provides for the administration of the National Library, Calcutta, by an autonomous Board.

*The Maintenance of Internal Security (Second Amendment) Act,* 1976

Amends section 16A of the Maintenance of Internal Security Act, 1971, in order to extend the period of operation of the provisions of the

section for a period of twenty-four months (instead of twelve months) from 25 June 1975 or the period of operation of the Proclamation of Emergency issued in 1971 or the period of operation of the Proclamation of Emergency issued in 1975, whichever is the shortest.

*The President's Pension (Amendment) Act,* 1976

Amends the President's Pension Act, 1951, to extend the facilities for medical attendance and treatment, free of charge, to the spouse of a retired President or the spouse of a President who dies while holding office.

*The Territorial Waters, Continental Shelf, Exclusive Economic Zone and Other Maritime Zones Act,* 1976

The Act provides for the limits of India's maritime zones and for the nature, scope and extent of India's right, jurisdiction and control in relation to the various maritime zones. It also makes provisions for the regulation, exploration and exploitation of the resources of the continental shelf and the exclusive economic zone of India.

*The Contingency Fund of India (Amendment) Act,* 1976

The Contingency Fund of India Act, 1950, provides for the establishment of the Contingency Fund of India and for the custody and operation of such Funds The corpus of the Fund was fixed at rupees thirty crores by the Contingency Fund of India (Amendment) Act, 1970. The Present amendment raises the corpus of the Fund from rupees thirty crores to rupees fifty crores.

*The Antiquities and Art Treasures (Amendment) Act,* 1976

Amends the Antiquities and Art Treasures Act, 1972, to extend the time limit for taking out a licence for carrying on the business of selling or offering to sell any antiquity from two months to six months from the commencement of the principal Act. The supply of photographs along with the application for registration has been made obligatory only in respect of antiquities notified by the Government The Amendment also extends the scope of exemption provided under section 18 of the principal Act.

*The Government of Union Territories (Amendment) Act,* 1976

Amends the Government of Union Territories Act, 1963, to provide for the reservation of seats for the Scheduled Castes and Scheduled Tribes in the Legislative Assembly of Goa, Daman and Diu. It also deletes the provision for reservation for Scheduled Tribes in the Legislative Assembly of the Union Territory of Pondicherry as no such tribes have been notified in relation to that Union Territory

*The Delhi Agricultural Produce Marketing (Regulation) Act,* 1976

Provides for the better regulation of the purchase, sale, storage and processing of agricultural produce and the establishment of markets for agricultural produce in the Union Territory of Delhi and for matters connected therewith or incidental thereto.

*The Representation of the People (Amendment) Act,* 1976

Amends the Representation of the People Act, 1950, to provide that the extent of Parliamentary and Assembly constituencies in the Union Territory of Arunachal Pradesh will be as determined by the order of the Election Commission under the provisions of the Government of Union Territories Act, 1963. It also empowers the Election Commission to consolidate all orders relating to delimitation of Parliamentary and Assembly constituencies into one single order to be known as the Delimitation of Parliamentary and Assembly Constituencies Order, 1976 and to maintain them up-to-date. The amendment also substitutes the First Schedule (relating to allocation of seats in the House of the People) and the Second Schedule (regarding number of seats in the Legislative Assemblies) to the principal Act with new Schedules

*The Conservation of Foreign Exchange and Prevention of Smuggling Activities (Second Amendment) Act,* 1976

Amends section 12 A of the Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974, to extend the period of operation of the section for a period twenty-four months (instead of twelve months) from 25 June 1975 or the period of operation of the Proclamation of Emergency issued in 1971 or the period of operation of the Proclamation of emergency issued in 1975 whichever is the shortest.

*The Essential Commodities (Amendment) Act,* 1976

Amends the Essential Commodities Act, 1955, in order to intensify the drive against hoarders and profiteers and provides that a levy order issued in relation to foodgrains edible oil seeds and edible oils may fix, on a graded basis, the quantity to be sold by the producer, having regard to the estimated production of the crop in the concerned area and the aggregate area held by the producer under cultivation It also provides for the procedure for fixing the price in the case of levy on foodgrains, edible oils seeds, edible oils and for the criteria for the fixation of such price Certain provisions relating to seized commodities have been amended in order to make the Act more effective

*The Factories (Amendment) Act,* 1976

Amends the Factories Act, 1948, in order to ensure adequate safety measures and to promote the health and welfare of the workers employed in factories The term worker in the principal Act now includes within its meaning, contract labour employed in any manufacturing process

*The Labour Provident Fund Laws (Amendment) Act,* 1976

Seeks to introduce a new social security scheme known as the Deposit-linked Insurance Scheme to provide insurance coverage to the members of the Coal Mines Provident Fund and the Employee's Provident Fund, without payment of any premium by such members.

*The Constitution (Forty-First Amendment) Act,* 1976

Amends article 316 (2) of the Constitution, to raise the age of retirement of the Chairman and Members of the State Public Service Commissions from 60 to 62 years.

*The Fifth Schedule to the Constitution (Amendment) Act,* 1976

Amends the Fifth Schedule to the Constitution of India, in order to rationalise the tribal areas covered under the Fifth Schedule so that the Schedule Area covers the entire Sub-Plan area in the states

*The Central Sales Tax (Amendment) Act,* 1976

Amends among other things the Central Sales Tax Act to grant exemption from States sales tax on goods sold to export houses and export canalising agencies for the purpose of export.

*The Code of Civil Procedure (Amendment) Act,* 1976

Amends the Code of Civil Procedure Act, 1908 in order to eliminate delays in the disposal of cases and thus reduce the cost of litigation. Provision has been made in section 80 of the code to obtain urgent and immediate relief against Government or any public officer. But a stipulation has been made in the said section that reasonable opportunity of showing cause should be given to the Government or the public officers by courts before ordering such relief.

*The Salaries and Allowances of Members of Parliament (Amendment) Act,* 1976

Amends the Salaries and Allowances of Members of Parliament Act, 1954, to provide a pension ranging from rupees three hundred to rupees five hundred per mensum to ex-members of Parliament, who have served for a period of five years or more, whether continuous or not, as member of Parliament or partly, as member of Provisional Parliament Provisional Parliament includes the Constituent Assembly of the Dominion of India. It also regulates the free air travel facility given to the members of Parliament under the principal Act.

*The Untouchability (Offences) Amendment and Miscellaneous Provision Act,* 1976

Amends the Untouchability (Offences) Act, 1955 and the Representation of the People Act, 1951, in order to plug the loopholes and to make the penal provisions more stringent. The title of the Untouchability (Offences) Act, 1955 has been changed as the Protection of Civil Rights Act, 1955.

*The Advocates (Amendment) Act,* 1976

Amends the Advocates Act, 1961, to amalgamate the two classes of professionals, namely, advocate and solicitor into a single class of advocates with a view to simplify and streamline Court procedure, to avoid stratification of the profession and to reduce the cost of litigation. It also makes certain provisions relating to the Chairman and Vice-Chairman of the Bar Council of India and the State Bar Councils.

*The Scheduled Castes and Scheduled Tribes Orders (Amendment) Act,* 1976

Provides for the inclusion in, and the exclusion from the lists, of Scheduled Castes and Scheduled Tribes, of certain castes and tribes,

for the re-adjustment of representation of Parliamentary and Assembly constituencies in so far as such re-adjustment is necessitated by such inclusion or exclusion and for matters connected therewith.

*The House of the People (Extension of Duration) Amendment Act, 1976*

Extends the duration of the House of the People (Fifth Lok Sabha) for a further period of one year from 18 March 1977.

*The Constitution (Forty-Second Amendment) Act,* 1976

Amends the Constitution of India mainly on the basis of the Report of the Swaran Singh Committee with a view to removing the impediments to the growth of the economy and also for achieving the socio-economic objectives of the Constitution

*The Prevention of Publication of Objectionable Matter (Repeal) Act,* 1977

With a view to safeguarding the freedom of the press, this Act seeks to repeal the Prevention of Publication of Objectionable Matter Act, 1976.

*The Parliamentary Proceedings (Protection of Publication) Act,* 1977.

Provides for the publication of substantially true reports of proceedings in Parliament by newspapers and other mass publicity media without being exposed to any civil or criminal action The press and other publicity media were deprived of this privilege during the Emergency when the Parliamentary Proceedings (Protection of Publication) Act, 1956, was repealed. That privilege has now been restored by this Act.

*The Disputed Elections (Prime Minister and Speaker) Act,* 1977

Provides for Authorities to deal with disputed elections to Parliament in the case of Prime Minister and Speaker of the House of the people and other matters connected therewith The authority for trying a petition calling in question an election in the case of Prime Minister or Speaker, shall consist of a single member, who is a Judge of the Supreme Court, to be nominated in this behalf by the Chief Justice of India

*The Payment of Wages (Amendment) Act,* 1977

Amends the payment of Wages Act, 1938, in order to permit deductions for contributions to any insurance scheme framed by the Central Government for the benefit of its employees from their wages.

*The Presidential and Vice-Presidential Elections (Amendment) Act,* 1977

Seeks to restore to the Supreme Court the power to decide doubts and disputes relating to Presidential and Vice-Presidential elections The Supreme Court's power was taken away in 1975 through the Constitution (Thirty-Ninth Amendment) Act, which provided for the constitution of an authority or a body for the purpose

*The Yoga Undertakings (Taking over of Management) Act,* 1977

Provides for the taking over of the management of the two Yoga societies for a limited period in the public interest, and in order to secure the proper management thereof and for matters connected therewith or incidental thereto. The two yoga societies taken over by this Act are the Vishwayatan Yogashram and the Central Research Institute for Yoga both located at New Delhi.

*The Motor Vehicles (Amendment) Act,* 1977

The Motor Vehicles (Amendment) Act was enacted with a view to minimise road accidents. Provision has been made for stringent punishments for offences leading to accidents, namely, offences of driving a motor vehicle or motor-cycle having alcohol in the blood or under the influence of any drug or driving such vehicle or cycle rashly or negligently. New sections are added for breath test and laboratory test to find out whether a person driving or attempting to drive a motor vehicle is under the influence of drink or drug. Wearing protective headgear by persons driving or riding motor-cycle of any class in public places has been made compulsory except in the case of Sikhs who wear turban while riding a motor cycle Provision has also been made for suspension of driving licence under certain circumstances.

*The Salary and Allowances of Leaders of Opposition in Parliament Act,* 1977

Accords Statutory recognition and gives salary and certain other facilities and amenities to the leaders of opposition in both the Houses of Parliament It provides the leaders of opposition a salary of Rupees 2,250 per month, free furnished residence, travelling and daily allowances, free medical treatment, telephone and secretariat facilities.

*The Disturbed Areas (Special Courts) Act,* 1976

Provides for the speedy trial of certain offences in areas declared as disturbed areas

*The Constitution (Fortieth Amendment) Act,* 1976

Provides constitutional protection to 64 Central and State enactments from being challenged in courts on grounds of being violative of fundamental rights, by incorporating them in the Ninth Schedule. These enactments pertain to land reforms, urban land ceiling, essential commodities, abolition of bonded labour and action against smugglers and foreign exchange manipulators. The amendment also authorises Parliament to specify by law the limits of the country's territorial waters, the continental shelf, the exclusive economic zone and other maritime zones.

TABLE 24 1

LAWS OF PARLIAMENT DURING 1976

| Sl. No | Bill | Initiating Chamber | When introduced | When passed by the originating Chamber | When passed/returned by the other Chamber | Date of President's assent |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1. | The Income-tax (Amendment) Bill, 1976 | L S | 6-1-76 | 9-1-76 | 15-1-76 | 22-1-76 |
| 2 | The Burmah Shell (Acquisition of Undertakings in India) Bill, 1976 | L S. | 15-1-76 | 16-1-76 | 20-1-76 | 24-1-76 |
| 3. | The Unit Trust of India (Amendment) Bill, 1976 | LS | 12-1-76 | 16-1-76 | 20-1-76 | 24-1-76 |
| 4 | The Delhi Development (Amendment) Bill, 1976 | L S | 6-1-76 | 9-1-76 | 15-1-76 | 24-1-76 |
| 5 | The Appropriation Bill, 1976 | L.S. | 19-1-76 | 19-1-76 | 21-1-76 | 24-1-76 |
| 6 | The Appropriation (Railways) Bill, 1976 | L S | 19-1-76 | 19-1-76 | 21-1-76 | 24-1-76 |
| 7. | The Appropriation (No 2) Bill, 1976 | L S. | 19-1-76 | 19-1-76 | 21-1-76 | 25-1-76 |
| 8. | The Voluntary Disclosure of Income and Wealth Bill, 1976 | L S. | 12-1-76 | 19-1-76 | 22-1-76 | 25-1-76 |
| 9 | The Indian Railways (Amendment) Bill, 1976 | R S. | 6-1-76 | 12-1-76 | 23-1-76 | 25-1-76 |
| 10 | The Election Laws (Extension to Sikkim) Bill, 1976 | L S. | 9-1-76 | 12-1-76 | 19-1-76 | 25-1-76 |
| 11 | The Sales Promotion Employees (Conditions of Service) Bill, 1976 | R.S. | 14-5-76 | 24-7-75<br>19-1-76[1] | 12-1-76 | 25-1-76 |
| 12 | The Imports and Exports (Control) Amendment Bill, 1976 | L S | 9-1-76 | 2-1-76 | 20-1-76 | 25-1-76 |
| 13 | The Smugglers and Foreign Exchange Manipulators (Forfeiture of Property) Bill, 1976 | L S | 12-1-76 | 20-1-76 | 22-1-76 | 25-1-76 |
| 14 | The Maintenance of Internal Security (Amendment) Bill, 1976 | L S. | 20-1-76 | 22-1-76 | 24-1-76 | 25-1-76 |
| 15. | The Delhi Land Holdings (Ceiling) Amendment Bill, 1976 | L.S. | 15-1-76 | 20-1-76<br>2-2-76[2] | 27-1-76 | 9-2-76 |
| 16 | The Nagaland Appropriation Bill, 1976 | L S | 27-1-76 | 27-1-76 | 29-1-76 | 9-2-76 |
| 17. | The Pondicherry Appropriation Bill, 1976 | L S | 27-1-76 | 27-1-76 | 2-2-76 | 9-2-76 |
| 18. | The Delhi Rent Control (Amendment) Bill, 1976 | R.S | 19-1-76 | 21-1-76<br>29-1-76[3] | 27-1-76 | 9-2-76 |
| 19. | The Bonded Labour System (Abolition) Bill, 1976 | R S. | 6-1-76 | 12-1-76<br>29-1-76[4] | 27-1-76 | 9-2-76 |
| 20 | The Conservation of Foreign Exchange and Prevention of Smuggling Activities (Amendment) Bill, 1976 | L S | 20-1-76 | 27-1-76 | 29-1-76 | 9-2-76 |

[1] Amendment made by Lok Sabha on 12-1-76 considered and agreed to by Rajya Sabha on 19-1-76.
[2] Amendment made by Rajya Sabha on 27-1-76 considered and agreed to by Lok Sabha on 2-2-76
[3] Amendment made by Lok Sabha on 27-1-76 considered and agreed to by Rajya Sabha on 19-1-76
[4] Amendment made by Lok Sabha on 27.1.76 considered and agreed to by Rajya Sabha on 29-1-76.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| 21 | The Regional Rural Banks Bill, 1976 | L S | 15-1-76 | 21-1-76<br>2-2-76[5] | 29-1-76 | 9-2-76 |
| 22 | The Assam Sillimanite Limited (Acquisition and Transfer of Refractory Plant) Bill, 1976 | L S. | 19-1-76 | 27-1-76 | 2-2-76 | 11-2-76 |
| 23 | The Payment of Bonus (Amendment) Bill, 1976 | R S. | 22-1-76 | 28-1-76 | 4-2-76 | 11-2-76 |
| 24 | The Press Council (Repeal) Bill, 1976 | L S | 23-1-76 | 28-1-76 | 2-2-76 | 11-2-76 |
| 25 | The Equal Remuneration Bill, 1976 | R S. | 6-1-76 | 12-1-76<br>3-2-76[6] | 30-1-76 | 11-2-76 |
| 26 | The Motor Vehicles (Amendment) Bill, 1976 | R.S. | 6-1-76 | 19-1-76<br>3-2-76[7] | 30-1-76 | 11-2-76 |
| 27 | The Prevention of Publication of Objectionable Matter Bill, 1976 | L.S | 27-1-76 | 29-1-76 | 4-2-76 | 11-2-76 |
| 28 | The Parliamentary Proceedings (Protection of Publication) Repeal Bill, 1976 | L.S | 27-1-76 | 28-1-76 | 3-2-76 | 11-2-76 |
| 29. | The Payment of Wages (Amendment) Bill, 1976 | R S. | 8-1-76 | 15-1-76<br>5-2-76[8] | 3-2-76 | 11-2-76 |
| 30 | The House of the People (Extension of Duration) Bill, 1976 | L S. | 3-2-76 | 4-2-76 | 6-2-76 | 16-2-76 |
| 31 | The Levy Sugar Price Equalisation Fund Bill, 1976 | L S. | 27-1-76 | 5-2-76 | 6-2-76 | 16-2-76 |
| 32 | The Industrial Disputes (Amendment) Bill, 1976 | R S | 28-1-76 | 2-2-76<br>6-2-76[9] | 5-2-76 | 16-2-76 |
| 33 | The Urban Land (Ceiling and Regulation) Bill, 1976 | L.S | 28-1-76 | 2-2-76<br>6-2-76[10] | 5-2-76 | 17-2-76 |
| 34. | The Prevention of Food Adulteration (Amendment) Bill, 1976 | R.S | 12-8-76 | 27-1-76 | 6-2-76 | 17-2-76 |
| 35 | The High Court Judges (Conditions of Service) Amendment Bill, 1976 | L.S | 6-2-76 | 8-3-76 | 11-3-76 | 18-3-76 |
| 36 | The Supreme Court Judges (Conditions of Service) (Amendment) Bill, 1976 | L.S. | 6-2-76 | 8-3-76 | 11-3-76 | 18-3-76 |
| 37. | The Indian Lighthouse (Amendment) Bill, 1976 | L S. | 6-1-76 | 8-3-76 | 10-3-76 | 20-3-76 |
| 38 | The Appropriation (No 3) Bill, 1976 | L S | 12-3-76 | 12-3-76 | 15-3-76 | 22-3-76 |
| 39 | The Pondicherry Appropriaton (No 2) Bill, 1976 | L S. | 11-3-76 | 11-3-76 | 15-3-76 | 22-3-76 |
| 40 | The Nagaland Appropriation (No 2) Bill, 1976 | L S. | 11-3-76 | 11-3-76 | 15-3-76 | 22-3-76 |
| 41 | The Tamil Nadu State Legislature (Delegation of Powers) Bill, 1976 | R S. | 9-3-76 | 10-3-76 | 18-3-76 | 22-3-76 |
| 42. | The Warehousing Corporations (Amendment) Bill, 1976 | L.S. | 30-1-76 | 8-3-76 | 15-3-76 | 24-3-76 |
| 43 | The Appropriation (Vote on Account) Bill, 1976 | L S | 23-3-76 | 23-3-76 | 25-3-76 | 27-3-76 |
| 44 | The Gujarat State Legislature (Delegation of Powers) Bill 1976 | R.S. | 23-3-76 | 25-3-76 | 29-3-76 | 30-3-76 |
| 45 | The Contempt of Courts (Amendment) Bill, 1976 | R.S | 19-1-76 | 8-3-76 | 29-3-76 | 30-3-76 |
| 46 | The Kerala Legislative Assembly (Extension of Duration) Amendment Bill, 1976 | R S. | 23-3-76 | 25-3-76 | 29-3-76 | 31-3-76 |
| 47 | The Appropriation (Railways) No 2 Bill, 1976 | L S | 23-3-76 | 23-3-76 | 29-3-76 | 31-3-76 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 48 | The Appropriation (Railways) No. 3 Bill, 1976 | L S | 23-3-76 | 23-3-76 | 29-3-76 | 31-3-76 |
| 49 | The Foreign Contribution (Regulation) Bill, 1976 | R S | 24-12-73 | 9-3-76 | 29-3-76 | 31-3-76 |
| 50. | The Tamil Nadu Appropriation Bill, 1976 | L S. | 24-3-76 | 24-3-76 | 30-3-76 | 31-3-76 |
| 51. | The Tamil Nadu Appropriation (No. 2) Bill, 1976 | L S. | 24-3-76 | 24-3-76 | 30-3-76 | 31-3-76 |
| 52. | The Gujarat Appropriation Bill, 1976 | L S | 26-3-76 | 26-3-76 | 30-3-76 | 31-3-76 |
| 53 | The Maternity Benefit (Amendment) Bill, 1976 | R S. | 22-1-76 | 8-3-76 | 30-3-76 | 3-4-76 |
| 54 | The Indian Standards Institution (Certification Marks) Amendment Bill, 1976 | R S. | 3-2-76 | 10-3-76 | 30-3-76 | 3-4-76 |
| 55. | The Iron Ore Mines and Manganese Ore Mines Labour Welfare Cess Bill, 1976 | L S. | 5-2-76 | 26-3-76 | 31-3-76 | 7-4-76 |
| 56. | The Beedi Workers Welfare Cess Bill, 1976 | L S | 9-1-76 | 26-3-76 | 1-4-76 | 7-4-76 |
| 57. | The High Court at Patna (Establishment of a Permanent Bench at Ranchi) Bill, 1976 | L S | 6-2-76 | 9-3-76 | 11-3-76 | 8-4-76 |
| 58 | The Comptroller and Auditor-General's (Duties, Powers and Conditions of Service) Amendment Bill, 1976 | L S. | 23-3-76 | 25-3-76 | 31-3-76 | 8-4-76 |
| 59 | The Departmentalisation of Union Accounts (Transfer of Personnel) Bill, 1976 | L S | 23-3-76 | 25-3-76 | 31-3-76 | 8-4-76 |
| 60 | The Standards of Weights and Measures Bill, 1976 | R S | 25-7-75 | 15-1-76<br>15-3-76[11] | 9-3-76 | 8-4-76 |
| 61. | The Iron Ore Mines and Manganese Ore Mines Labour Welfare Fund Bill, 1976 | L S | 5-2-76 | 26-3-76 | 31-3-76 | 10-4-76 |
| 62. | The Beedi Workers Welfare Fund Bill, 1976 | L S. | 9-1-76 | 26-3-76 | 1-4-76 | 10-4-76 |
| 63. | The Betwa River Board Bill, 1976 | L S | 6-1-76 | 30-3-76 | 1-4-76 | 10-4-76 |
| 64 | The Appropriation (No. 4) Bill, 1976 | L S. | 11-5-76 | 11-5-76 | 18-5-76 | 20-5-76 |
| 65. | The Workmen's Compensation (Amendment) Bill, 1976 | R S. | 31-3-76 | 1-4-76 | 19-5-76 | 27-5-76 |
| 66. | The Finance Bill, 1976 | L.S. | 15-3-76 | 17-5-76 | 20-5-76 | 27-5-76 |
| 67. | The Coal Mines (Nationalisation) Amendment Bill, 1976 | L S | 7-5-76 | 17-5-76 | 20-5-76 | 27-5-76 |
| 68. | The Marriage Laws (Amendment) Bill, 1976 | R S | 29-3-76 | 12-5-76 | 24-5-76 | 27-5-76 |
| 69. | The Merchant Shipping (Amendment) Bill, 1976 | R S | 1-4-76 | 12-5-76 | 24-5-76 | 27-5-76 |
| 70 | The Pharmacy (Amendment) Bill, 1976 | R S | 8-8-75 | 12-5-76 | 24-5-76 | 27-5-76 |
| 71 | The Constitution (Fortieth Amendment) Bill, 1976[12] | L S | 21-5-76 | 25-5-76 | 27-5-76 | 27-5-76 |
| 72 | The Tariff Commission (Repeal) Bill, 1976 | R S | 29-3-76 | 12-5-76 | 26-5-76 | 28-5-76 |

[5] Amendment made by Rajya Sabha on 29-1-76 considered and agreed to by Lok Sabha on 2-2-76

[6] Amendment made by Lok Sabha on 30-1-76 considered and agreed to by Rajya Sabha on 3-2-76

[7] Amendment made by Lok Sabha on 30-1-76 considered and agreed to by Rajya Sabha on 3-2-76

[8] Amendment made by Lok Sabha on 3-2-76 considered and agreed to by Rajya Sabha on 5-2-76

[9] Amendment made by Lok Sabha on 5-2-76 considered and agreed to by Rajya Sabha on 6-2-76

[10] Amendment made by Rajya Sabha on 5-2-76 considered and agreed to by Lok Sabha on 6-2-76

[11] Amendment made by Lok Sabha on 9-3-76 considered and agreed to by Rajya Sabha on 15-3-76

[12] The Bill was introduced in Lok Sabha as "The Constitution (Forty-second Amendment) Bill, 1976

| 1 | 2 | 3 | 4 | 5 | | 7 |
|---|---|---|---|---|---|---|
| 73 | The Life Insurance Corporation (Modification of Settlements) Bills, 1976 | L S | 1-5-76 | 20-4-76 | 28-5-76 | 29-5-76 |
| 74. | The Banking and Public Financial Institutions Laws (Amendment) Bill, 1976 | L S | 24-5-76 | 26-5-76 | 28-5-76 | 11-6-76 |
| 75 | The Additional Emoluments (Compulsory Deposit) Amendment Bill, 1976 | L S | 4-5-76 | 19-5-76 | 27-5-76 | 11-6-76 |
| 76 | The Tea (Amendment) Bill, 1976 | L S | 31-3-76 | 18-5-76 | 25-5-76 | 11-6-76 |
| 77 | The National Library of India Bill, 197613 | L S | 18-12-72 | 18-5-76 | 25-5-76 | 11-6-76 |
| 78. | The Disturbed Areas (Special Courts) Bill, 1976 | L S | 31-5-72 | 20-5-76 | 27-5-76 | 11-6-76 |
| 79 | The Maintenance of Internal Security (Second Amendment) Bill, 1976 | L S | 10-8-76 | 16-8-76 | 19-8-76 | 25-8-76 |
| 80 | The President's Pension (Amendment) Bill, 1976 | L S | 10-8-76 | 16-8-76 | 19-8-76 | 25-8-76 |
| 81 | The Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Bill, 1976 | R S. | 28-5-76 | 10-8-76 | 17-8-76 | 25-8-76 |
| 82. | The Contingency Fund of India (Amendment) Bill, 1976 | L S | 13-8-76 | 17-8-76 | 24-8-76 | 26-8-76 |
| 83 | The Antiquities and Art Treasures (Amendment) Bill, 1976 | R.S | 10-8-76 | 16-8-76 | 24-8-76 | 28-8-76 |
| 84 | The Appropriation (No 5) Bill, 1976 | L.S | 20-8-76 | 20-8-76 | 25-8-76 | 28-8-76 |
| 85 | The Tamil Nadu Appropriation (No 3) Bill, 1976 | L.S | 23-8-76 | 23-8-76 | 25-8-76 | 28-8-76 |
| 86. | The Pondicherry Appropriation (No 3) Bill, 1976 | L S | 23-8-76 | 23-8-76 | 25-8-76 | 28-8-76 |
| 87 | The Government of Union Territories (Amendment) Bill, 1976 | L S. | 27-5-76 | 11-8-76 | 17-8-76 | 31-8-76 |
| 88 | The Delhi Agricultural Produce Marketing (Regulation) Bill, 1976 | L S | 20-5-76 | 11-8-76 | 17-8-76 | 2-9-76 |
| 89 | The Representation of the People (Amendment) Bill, 1976 | L S | 13-8-76 | 16-8-76 | 23-8-76 | 2-9-76 |
| 90 | The Indian Iron and Steel Company (Acquisition of Shares) Bill, 1976 | L.S | 16-8-76 | 19-8-76 | 24-8-76 | 2-9-76 |
| 91 | The Conservation of foreign Exchange and Prevention of Smuggling Activities (Second Amendment) Bill, 1976 | L S. | 10-8-76 | 19-8-76 | 24-8-76 | 2-9-76 |
| 92. | The Delhi Sales Tax (Amendment and Validation) Bill, 1976 | L.S | 17-8-76 | 24-8-76 | 26-8-76 | 2-9-76 |
| 93 | The Essential Commodities (Amendment) Bill, 1976 | R S | 27-5-76 | 11-8-76 | 26-8-76 | 2-9-76 |
| 94 | The Dhoties (Additional Excise Duty) Repeal Bill, 1976 | L S | 24-8-76 | 25-8-76 | 30-8-76 | 4-9-76 |
| 95. | The Factories (Amendment) Bill, 1976 | R S. | 28-5-76 | 11-8-76 | 27-8-76 | 4-9-76 |
| 96 | The Appropriation (No 6) Bill, 1976 | L.S | 26-8-76 | 26-8-76 | 31-8-76 | 4-9-76 |
| 97 | The Braithwaite and Company (India) Limited (Acquisition and Transfer of Undertakings) Bill, 1976 | L S | 20-8-76 | 24-8-76 | 26-8-76 | 5-9-76 |
| 98 | The Burn Company and India Standard Wagon Company (Nationalisation) Bill, 1976 | L S. | 20-8-76 | 24-8-76 | 26-8-76 | 5-9-76 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 99. | The Laxmirattan and Atherton West Cotton Mills (Taking over of Management) Bill, 1976 | L S | 24-8-76 | 25-8-76 | 30-8 76 | 5-9-76 |
| 100 | The Labour Provident Fund Laws (Amendment) Bill, 1976 | L S | 25-8-76 | 26-8-76 | 30-8-76 | 7-9-76 |
| 101. | The Metal Corporation (Nationalisation and Miscellaneous Provisions) Bill, 1976 | L S | 24-8-76 | 25-8-76 | 30-8-76 | 7-9-76 |
| 102. | The Constitution (Forty-first Amendment) Bill, 1976[14] | L S. | 26-8-76 | 30-8-76 | 1-9-76 | 7-9-76 |
| 103 | The Fifth Schedule to the Constitution (Amendment) Bill, 1976 | L.S | 26-8-76 | 30-8-76 | 1-9-76 | 7-9-76 |
| 104 | The Kerala Legislative Assembly (Extension of Duration) Second Amendment Bill, 1976 | L S | 26-8-76 | 31-8-76 | 1-9-76 | 7-9-76 |
| 105 | The Central Sales Tax (Amendment) Bill, 1976 | L S | 26-8-76 | 31-8-76 | 2-9-76 | 7-9-76 |
| 106 | The Code of Civil Procedure (Amendment) Bill, 1976 | L S. | 8-4-74 | 12-8-76 | 23-8-76 | 9-9-76 |
| 107 | The Salaries and Allowances of Members of Parliament (Amendment) Bill, 1976 | L S | 31-8-76 | 1-9-76 | 2-9-76 | 9-9-76 |
| 108. | The Untouchability (Offences) Amendment and Miscellaneous Provision Bill, 1976 | L S | 13-4-72 | 2-9-76 | 3-9-76 | 13-9-76 |
| 109. | The Advocates (Amendment) Bill, 1976 | L S | 24-8-76 | 2-9-76 | 3-9-76 | 13-9-76 |
| 110. | The Scheduled Castes and Scheduled Tribes Orders (Amendment) Bill, 1976 | L S. | 21-5-76 | 2-9-76 | 3-9-76 | 18-9-76 |
| 111. | The House of the People (Extension of Duration) Amendment Bill, 1976 | L S | 3-11-76 | 5-11-76 | 12-11-76 | 24-11-76 |
| 112. | The Appropriation (Railways) No 4 Bill, 1976 | L S. | 3-11-76 | 3-11-76 | 11-11-76 | 25-11-76 |
| 113. | The Appropriation (Railways) No. 5 Bill, 1976 | L.S. | 3-11-76 | 3-11-76 | 11-11-76 | 25-11-76 |
| 114. | The Appropriation (No. 7) Bill, 1976 | L.S. | 3-11-76 | 3-11-76 | 12-11-76 | 25-11-76 |
| 115 | The Gujarat Appropriation (No. 2) Bill, 1976 | L S | 4-11-76 | 4-11-76 | 15-11-76 | 25-11-76 |
| 116. | The Pondicherry Appropriation (No 4) Bill, 1976 | L S | 4-11-76 | 4-11-76 | 15-11-76 | 25-11-76 |
| 117. | The Electricity (Supply) Amendment Bill, 1976 | L S | 30-10-76 | 4-11-76 | 15-11-76 | 30-11-76 |
| 118. | The Constitution (Forty-second Amendment) Bill, 1976[15] | L S | 1-9-76 | 2-11-76 | 11-11-76 | 18-12-76 |

[13]The Bill was introduced in the Lok Sabha as "The National Library Bill, 1972" The short title of the Bill was changed by Lok Sabha.

[14]The Bill was introduced in the Lok Sabha as "The Constitution (Forty-third Amendment)" Bill, 1976

[15]The Bill was introduced in the Lok Sabha as "The Constitution (Forty-fourth Amendment)" Bill, 1976

TABLE 24 2

LAWS OF PARLIAMENT DURING 1977[1]

| Sl No | Bill | Initiating Chamber | When Introduced | When passed by the originating Chamber | When Passed/returned by the other Chamber | Date of President's assent |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1 | The Appropriation (Vote on Account) Bill, 1977 | L S | 30-3-77 | 30-3-77 | 31-3-77 | 31-3-77 |
| 2 | The Appropriation Bill, 1977 | L S | 30-3-77 | 30-3-77 | 31-3-77 | 31-3-77 |
| 3. | The Appropriation (Railways) Vote on Account Bill, 1977 | L S | 29-3-77 | 29-3-77 | 31-3-77 | 31-3-77 |
| 4. | The Appropriation (Railways) Bill, 1977 | L S | 29-3-77 | 29-3-77 | 31-3-77 | 31-3-77 |
| 5 | The Tamil Nadu Appropriation (Vote on Account) Bill, 1977 | L S | 30-3-77 | 30-3-77 | 31-3-77 | 31-3-77 |
| 6 | The Tamil Nadu Appropriation Bill, 1977 | L S | 30-3-77 | 30-3-77 | 31-3-77 | 31-3-77 |
| 7 | The Nagaland Appropriation (Vote on Account) Bill, 1977 | L S | 30-3-77 | 30-3-77 | 31-3-77 | 31-3-77 |
| 8 | The Nagaland Appropriation Bill, 1977 | L S | 30-3-77 | 30-3-77 | 31-3-77 | 31-3-77 |
| 9. | The Pondicherry Appropriation (Vote on Account) Bill, 1977 | L.S | 30-3-77 | 30-3-77 | 31-3-77 | 31-3-77 |
| 10 | The Pondicherry Appropriation Bill, 1977 | L S | 30-3-77 | 30-3-77 | 31-3-77 | 31-3-77 |
| 11. | The Finance Bill, 1977 | L S | 28-3-77 | 31-3-77 | 4-4-77 | 6-4-77 |
| 12 | The Food Corporations (Amendment) Bill, 1977 | R S | 31-3-77 | 4-4-77 | 7-4-77 | 11-4-77 |
| 13 | The Petroleum Pipelines (Acquisition of Right of user in Land) Amendment Bill, 1977 | L S | 4-4-77 | 6-4-77 | 11-4-77 | 18-4-77 |
| 14 | The Prevention of Publication of Objectionable Matter (Repeal) Bill, 1977 | L.S | 4-4-77 | 6-4-77 | 9-4-77 | 18-4-77 |
| 15 | The Parliamentary Proceedings (Protection of Publication) Bill, 1977 | L S | 4-4-77 | 7-4-77 | 9-4-77 | 18-4-77 |
| 16. | The disputed Elections (Prime Minister and Speaker Bill, 1977 | L S | 5-4-77 | 7-4-77 | 11-4-77 | 18-4-77 |
| 17 | The Caltex (Acquisition of Shares of Caltex Refining (India) Limited and of the Undertakings in India of Caltex (India) Limited Bill, 1977 | L S | 1-4-77 | 6-4-77 | 9-4-77 | 23-4-77 |
| 18 | The Appropriation (Railways) No 2 Bill, 1977 | L S | 17-6-77 | 17-6-77 | 20-6-77 | 23-6-77 |
| 19 | The Payment of Wages (Amendment) Bill, 1977 | L S | 20-6-77 | 23-6-77 | 28-6-77 | 30-6-77 |
| 20 | The Presidential and Vice-Presidential Elections (Amendment) Bill, 1977 | L S | 16-6-77 | 18-6-77 | 28-6-77 | 5-7-77 |
| 21 | The Yoga Undertakings (Taking over of Management) Bill, 1977 | L S | 22-6-77 | 25-6-77 | 28-6-77 | 5-7-77 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 22. | The Appropriation (No. 2) Bill, 1977 | L.S. | 14-7-77 | 14-7-77 | 21-7-77 | 23-7-77 |
| 23. | The Oil and Natural Gas Commission (Amendment) Bill, 1977 | R S | 22-6-77 | 19-7-77 | 25-7-77 | 30-7-77 |
| 24 | Inspecticides (Amendment) Bill, 1977 | R S. | 24-8-76 | 18-7-77 | 26-7-77 | 2-8-77 |
| 25 | The Nagaland Appropriation (No 2) Bill, 1977 | L S. | 25-7-77 | 25-7-77 | 28-7-77 | 2-8-77 |
| 26. | The Cardamom (Amendment) Bill, 1977 | L.S | 22-6-77 | 19-7-77 | 28-7-77 | 2-8-77 |
| 27 | The Motor Vehicles (Amendment) Bill, 1977[2] | R S. | 2-9-76 | 18-7-77 | 25-7-77 | 3-8-77 |
| 28 | The Appropriation (No 3) Bill, 1977 | L S. | 25-7-77 | 25-7-77 | 3-8-77 | 6-8-77 |
| 29 | The Finance (No 2) Bill, 1977 | L S | 17-6-77 | 18-7-77<br>2-8-77[4] | 28-7-77[3] | 8-8-77 |
| 30 | The National Highways (Amendment) Bill, 1977 | L S | 18-6-77 | 19-7-77 | 2-8-77 | 12-8-77 |
| 31 | The Petroleum (Amendment) Bill, 1977 | L S | 20-7-77 | 26-7-77 | 2-8-77 | 12-8-77 |
| 32 | The Tea (Amendment) Bill, 1977 | L S | 20-7-77 | 27-7-77 | 2-8-77 | 12-8-77 |
| 33 | The Salary and Allowances of Leaders of Opposition in Parliament Bill, 1977 | L S. | 6-8-77 | 8-8-77 | 9-8-77 | 18-8-77 |

[1]Up to 30 September 1977 only

[2]The Bill was introduced as the Motor Vehicles (Second Amendment) Bill, 1976.

[3]Returned to the Lok Sabha with recommendations

[4]Amendments recommended by the Rajya Sabha were considered and rejected by the Lok Sabha on 2-8-77. The Bill was deemed to have been passed by the Houses of Parliament under clauses (4) of Article 109 of the Constitution of India

# 25 STATES AND UNION TERRITORIES

*Note* Area figures for all states and union territories are provisional as on 1 July 1971 except in the case of Andaman and Nicobar Islands where they relate to 1 January 1966

## ANDHRA PRADESH

| | |
|---|---|
| *Area* 2,76,814 sq. km | *Population* . 4,35,02,708 |
| *Capital . Hyderabad* | *Principal languages* : Telugu and Urdu |

AGRICULTURE Agriculture is the main occupation of about 74 per cent of the people of Andhra Pradesh. Thirty-five per cent of the cultivated area is irrigated The state is surplus in foodgrains, particularly rice. Other important crops are jowar, bajra, maize, ragi, small millets, pulses, tobacco, cotton, sugarcane, groundnut and bananas. The production of foodgrains was 94.28 lakh tonnes in 1975-76. The state accounts for about 55 per cent of the country's entire production of castor and 94 per cent of Virginia tobacco.

Forests cover 23 3 per cent of state's area. Important forest products are teak, eucalyptus, cashew, casuarina, bamboo, soft wood and miscellaneous species

INDUSTRY The state is endowed with a rich variety of minerals. In fact, Andhra Pradesh has a virtual monopoly of quality 'chrysotile asbestos' in the country It accounts for about 75 per cent of India's total production of barytes Other important minerals found are copper ore, manganese, mica, coal and limestone. The state ranks sixth in manganese ore production in the country.

Several major industries have been established in the state, especially around Hyderabad and Vishakhapatnam. These produce machine tools, synthetic drugs, pharmaceuticals, heavy electrical machinery, ships, fertilizers, electronic equipment, aeronautical parts, cement, chemicals, asbestos, cement products and glass.

IRRIGATION AND POWER Important irrigation schemes implemented include Nagarjunasagar project, Prakasam barrage, Tungabhadra low level canal, Kurnool-Cuddapah canal, Kadam project, Romperu Drainage project and Upper Pennar project in addition to numerous other medium and minor irrigation schemes.

Important power projects are the Machchkund, Upper Sileru, Lower Sileru, Tungabhadra Dam and Nizam Sagar hydel power schemes and Nellore, Ramagundam, Kothagudam and Hussain Sagar (Hyderabad) thermal stations The per capita consumption of electricity, which was 2.5 kwh at the beginning of the First Plan, rose to 62 kwh in 1975-76 The installed capacity, both hydel and thermal, was 1,003 mw in 1975-76. The state's prestige power project, the Srisailam hydro-electric project, is under construction.

GOVERNMENT *Governor* : Smt. Sharada Mukherjee

**Council of Ministers[1]**

*Chief Minister* : M Channa Reddy

*Cabinet Ministers* : N. Amaranatha Reddy, M. Baga Reddy, P. V. Choudary, C. Dass, P. Ganga Reddy, M. M Hashim, T. Hayagrivachari, N. Janardhana Reddy, A Madan Mohan, M. Manik Rao, V. Nageswara Rao, K. B. Narasappa, K. Obula Reddy, G Raja Ram. B. Ramdev, Smt Roda Mistry, G. V Sudhakara Rao, V. Venkatanarayana, B Venkat Ram Reddy. Y Venkata Rao and G. Venkataswamy.

*Ministers of State* : Ahmed Shareef, N. Bhaskara Rao, Nizam Vali, K. V. R S Padmanabha Raju, M. S. V. Prasada Rao, G. Ramaswamy, K Ranga Rao, P. Seshavataram, A Vangala Reddy, A Veerappa and S Venkata Reddy

**Legislative Council[1]**

*Chairman* : N. A

*Deputy Chairman* : Syed Mukkassir Shah

**Legislative Assembly[2]**

*Speaker* . D K Choudhary

*Deputy Speaker* . K Prabhakar Reddy

**High Court[1]**

*Chief Justice* : S Obul Reddi

*Judges* . A Sambasiva Rao, A Kuppuswami, O. Chinnappa Reddy, K. Madhava Reddy, K. Ramachandra Rao, M. Ramachandra Raju, T Lakshmaiah, A V. Krishna Rao, K A Muktadar, P. Chennakesav Reddy, V. Madhava Rao, S Madhusudan Rao. K. Punnayya, A. Raghuvir, A. Gangadhara Rao, K. Jayachandra Reddy, B P Jeevan Reddy and K. Amareswari

**Public Service Commission[2]**

*Chairman* : S A. Quader

*Members* : J Veeraswami, Y. Sivasankara Reddi and T. V. Narayana.

*Chief Secretary* I J Naidu

**AREA, POPULATION AND HEADQUARTERS OF DISTRICTS**

| | *District* | *Area (sq km)* | *Population (1971 census)* | *Headquarters* |
|---|---|---|---|---|
| 1 | Adilabad | 16,133 | 12,88,348 | Adilabad |
| 2 | Anantapur | 19,125 | 21,15,321 | Anantapur |
| 3 | Chittoor | 15,763 | 22,85,536 | Chittoor |
| 4 | Cuddapah | 15,356 | 15,77,267 | Cuddapah |
| 5 | East Godawari | 10 970 | 30,87,262 | Kakinada |
| 6 | Guntur | 11,377 | 28,44 488 | Guntur |
| 7 | Hyderabad | 7,707 | 27,91,762 | Hyderabad |
| 8 | Karimnagar | 11,824 | 19,63 928 | Karimnagar |
| 9 | Khammam | 15,872 | 13,69,892 | Khammam |
| 10 | Krishna | 8,734 | 24,93,574 | Bandar/Masulipatnam |
| 11 | Kurnool | 18,799 | 19 82,090 | Kurnool |
| 12 | Mahbubnagar | 18,419 | 19,32,082 | Mahbubnagar |
| 13 | Medak | 9,685 | 14,67 944 | Sangareddi |
| 14 | Nalgonda | 14 242 | 18,19,738 | Nalgonda |
| 15 | Nellore | 13,058 | 16,09,617 | Nellore |
| 16 | Nizamabad | 7,969 | 13,13 268 | Nizamabad |
| 17. | Prakasam | 17 620 | 19,19,995 | Ongole |
| 18 | Srikakulam | 9,743 | 25,89,991 | Srikakulam |
| 19 | Vishakhapatnam | 13,799 | 28 05,366 | Vishakhapatnam |
| 20 | Warangal | 12,875 | 18 70 933 | Warangal |
| 21. | West Godavari | 7,744 | 23,74 306 | Eluru |

[1]As on 13-3-1978 [2]As on 3-7-1978

N A —Not available

## ASSAM

| *Area* : 78,523 sq. km. | *Population* : 1,46,152 |
|---|---|
| *Capital* . Dispur | *Principal language* · Assamese |

AGRICULTURE

The area under food crops accounts for over 72 per cent of the total cultivated area. The principal food crop is rice while the main cash crops are jute, tea, cotton, oilseeds, sugarcane, potato and fruits. Cultivation of wheat was virtually non-existent a decade ago. In recent years, wheat production has steadily increased; in 1976-77 it was 71,045 tonnes. Total production of foodgrains during 1976-77 was 21 47 lakh tonnes An additional area of 50,000 hectares was brought under HYV (paddy) during 1975-76.

Forests cover about 35 per cent of the total area of the state. The main forest products are timber, bamboo, reeds, medicinal herbs, lac, cane and elephant tusks.

INDUSTRY

Assam is rich in mineral wealth. It holds a unique position in the production of mineral oil. Other minerals found in the state are coal, limestone, refractory clay, dolomite, corundum and natural gas.

Of the agriculture based industries, tea occupies an important place. There are nearly 750 tea plantations in the state Petroleum and petroleum products form the other main industries The state has two oil refineries and the third, with a petro-chemical complex, is under way. There is also a public sector fertilizer factory at Namrup Other industries are sugar, jute, silk, paper, plywood manufacture, and rice and oil milling Important cottage industries are handloom, sericulture, manufacture of cane and bamboo articles, carpentry, smithy and manufacture of brass utensils.

IRRIGATION AND POWER

The two medium irrigation schemes started in the state during the Third Five Year Plan and which spilled over to the Fourth Plan were the Yamuna and Sukla irrigation projects. The Yamuna project was commissioned in 1969. Execution of 11 medium and one major project has started. These projects are likely to be completed during the Fifth Plan period and they will have a coverage of 70,000 hectares.

Assam had only 20 electrified vilages in 1951; the number has now increased to 21,995.

GOVERNMENT

*Governor* : L. P. Singh

Council of Ministers[1]

*Chief Minister* : Golap Borbora
*Cabinet Ministers* : Dulal Chandra Barua, Keshab Chandra Gogoi, Lakhadhar Choudhury, Soneswar Bora, Samar Brahma Choudhury, A M Golam Osmani, Jagannath Sinha, Lakheswar Gohain, Zahirul Islam, Ramesh Mohan Kauli and Sonaram Thaosen.
*Ministers of State* : Koesheswar Bora, Lilamoy Das, Ramani Barman and Gandhi Ram Timung

Legislative Assembly[1]

*Speaker* : Jogendra Nath Hazarika
*Deputy Speaker* · Sheikh Chand Mahammad

High Court[1]

*Chief Justice* : M S. Swami
*Judges* · B. N. Sarma, Baharul-Islam, D. Pathak, Sesha Iyenger Rangarajan and Kiranmoy Lahiri

[1]As on 10-4-78

Public Service Commission[1]

*Chairman* : R. Basumatary
*Members* : R K Bhuyan and N. Islam

*Chief Secretary* : S M L. Bhatnagar

AREA, POPULATION AND HEADQUATERS OF DISTRICTS

| | *District* | *Area* (*sq km*) | *Population* (*1971* census) | *Headquarters* |
|---|---|---|---|---|
| 1 | Cachar | 6,962 | 17,13,318 | Silchar |
| 2 | Darrang | 8,775 | 17,36,188 | Tezpur |
| 3 | Goalpara | 10,359 | 22,25,103 | Dhubri |
| 4 | Kamrup | 9,863 | 28,54,183 | Gauhati |
| 5 | Mikir Hills | 10,332 | 3,79,310 | Diphu |
| 6 | North Cachar Hills | 4,890 | 76,047 | Haflong |
| 7 | Nowgong | 5,561 | 16,80,895 | Nowgong |
| 8 | Sibsagar | 8,989 | 18,37,389 | Jorhat |
| 9 | Lakhimpur | 5,646 | 7,11,600 | North Lakhimpur |
| 10 | Dibrugarh | 7,023 | 14,11,119 | Dibrugarh |

## BIHAR

*Area* . 1,73,876 sq km. *Population* 5,63,53,369
*Capital* Patna *Principal language* Hindi

AGRICULTURE

Irrigated area forms about 26 per cent of the cultivable area of the state The principal food crops are rice, wheat, maize, ragi and pulses Main cash crops are sugarcane, oilseeds, tobacco and jute. The production of foodgrains was about 93 lakh tonnes in 1975-76 compared to 82.50 lakh tonnes in 1974-75.

Forests cover about 17 per cent of the area Important forest products are timber, *kendu* leaves, lac, gum and resin

INDUSTRY

Bihar is one the richest states in India in mineral wealth, accounting for about 40 per cent of the total mineral production in the country. It has huge deposits of copper, apatite and kyanite and sizeable deposits of coal, mica and china clay. It is also one of the principal iron ore producing states Other important minerals found are manganese, limestone, graphite, chromite asbestos, barytes, dolomite, felspar, columbite, pyrites, saltpetre, glass sands, slate, lead, silver, building stones and radio-active minerals

The Tata Iron and Steel Company and the Tata Engineering and Locomotive Company at Jamshedpur, the fertilizer factory at Sindri, the heavy machine tool factory and foundry forge project at Ranchi, the steel plant at Bokaro, the oil refinery at Barauni, the aluminium plant at Muri (Ranchi), explosives factory at Gomia and paper factory at Dalmianagar, Hindustan Copper Corporation at Ghatsila, a zinc production unit at Tundu (Dhanbad), marine diesel engineering, ball bearing and wire rope units at Ranchi are some of the major industrial ventures in the state The high tension insulator factory and the electric equipment factory at Ranchi and a modern rice mill at Bikramganj are some of the important Bihar State public sector enterprises There are 29 sugar factories, seven cement factories, seven distilleries, three jute mills and two wagon-making units.

Bihar is famous for its tussore silk industry which employs more than one lakh persons A spun silk mill in the public sector has been

[1]As on 10-4-1978

set up at Bhagalpur. Handicrafts occupy an important place among the cottage industries of Bihar

Six Industrial Area Development Authorities are functioning at Adityapur, Bokaro, Darbhanga, Patna, Ranchi and Muzaffarpur. Twenty industrial estates are located in different parts of the state. With a view to stepping up the pace of industrial development, the state government has set up the Bihar State Credit and Investment Corporation, the Bihar State Leather Industries Development Corporation, a sugar corporation, an export corporation, the Bihar State Handloom, Powerloom and Handicrafts Development Corporation, the Bihar State Industrial Development Corporation, the Bihar State Small Industries Corporation and the Bihar State Financial Corporation.

**IRRIGATION AND POWER**

Major irrigation projects are on rivers Kosi, Gandak, Sone, Badua, Chandan, North Koel and Bagmati. There are a number of small and medium irrigation projects to benefit tribal areas Several flood control schemes are in various stages of completion The state shares the benefits of the multi-purpose Damodar Valley project with West Bengal in respect of power.

Major power projects are the Patratu thermal power station, Barauni thermal power station and Subaranarekha hydro-electric power station under Bihar State Electricity Board and Bokaro and Chandrapura thermal power stations and Tilaiya, Maithon and Panchet hydel power stations under the Damodar Valley Corporation

The total installed capacity of power, both hydel and thermal, in March 1976 was 1,551 mw. The number of electrified villages which was 4 in 1951, increased to 16,565 by March 1976. For irrigation, 1,19,340 pumpsets/tube-wells had been energised by March 1976 as against 47 in 1951

**GOVERNMENT**

*Governor* : Jagannath Kaushal

**Council of Ministers**[1]

*Chief Minister* : Karpoori Thakur
*Cabinet Ministers* : Kailash Pati Mishra, Jageshwar Mandal, Kapildeo Singh, Thakur Prasad, Anup Lal Yadav, Smt Sumitra Devi, Sachidanand Singh, Prof. Zabir Hussain, Kameshwar Paswan, Lalit Uraon, Jagbandhu Adhikari, Shanker Prasad Tekriwal, Upendra Nath Verma, Mahabir Prasad, Gulam Sarwar, Puran Chand, Mohan Ram, Thakur Pd Singh, Sham Sher Jung Bahadur Singh, Digambar Thakur, Baidyanath Mehta, Ram Chandra Singh Yadav and Mahadeo Marandi
*Ministers of State* : Siya Ram Thakur, Manjaya Lal, Guneshwar Prasad Singh, Sukhdeo Shukla, Janardan Yadav. Gajendra Prasad Himansu, Shivnandan Paswan, Smt Lalita Raj Lakshmi, Smt Sushila Sahay, Raghubansh Prasad Singh, Zorawar Ram and Anirudh Prasad.

**Legislative Council**[1]

*Chairman* : N. A.
*Deputy Chairman* : Sushri Rajeshwari Saroj Das

**Legislative Assembly**[1]

*Speaker* : Tripurari Prasad Singh
*Dy. Speaker* : R. N. Jha

**High Court**[1]

*Chief Justice* : K. B. N. Singh
*Judges* : B D. Singh, S Sarwar Ali, M. M. Prasad, S. P Sinha, R. P. Sinha, D. P. Sinha, C. N. Tiwary, B. P. Jha, H L. Agarwal, L M.

[1]As on 15.10 1977 N A.—Not available

Sharma, S. K Jha, N P Singh, Muneshwari Sahay, S. K Choudhary, Uday Sinha, S Ali Ahmad, B P. Sinha, M P. Singh, Brishketu Saran Sinha, S Narain, G M Mishra, P. S. Sahay and Chaudhary S. S. Sinha

Public Service Commission[1]

*Chairman* : Dr. R Shukla
*Members* · K. P. N Singh, Dr. K Bimal, Anwar Karim, Dr. H G. Singh, F. Ahmad, Jiwand Singh, Ram Bhagat Paswan and Yogesh Munmu.

*Chief Secretary* : P. S Appu

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| District | Area (sq. km) | Population (1971 census) | Headquarters |
|---|---|---|---|
| 1. Patna | 3,181 9 | 22,50,883 | Patna |
| 2 Nalanda | 2,346 1 | 13,06,062 | Biharsharif |
| 3 Gaya | 4,287 5 | 19,24,289 | Gaya |
| 4. Aurangabad | 4,408 9 | 12,92,666 | Aurangabad |
| 5 Nawadah | 3,647 6 | 12,40,518 | Nawadah |
| 6 Bhojpur | 4,023 8 | 19,95,146 | Arrah |
| 7 Gohtas | 7,296·2 | 19,43,888 | Sasaram |
| 8 Saran | | 17 09,722 | Chapra |
| 9 Siwan | 6,952 0 | 14,02,067 | Siwan |
| 10 Gopalganj | | 11,07,464 | Gopalganj |
| 11 Champaran East | 4,333 8 | 19,56,084 | Motihari |
| 12 Champaran West | 4,862 2 | 15,87,019 | Bettiah |
| 13 Muzaffarpur | 316 1 | 19,09,058 | Muzaffarpur |
| 14 Vaishali | 2,018 7 | 13,48,990 | Hajipur |
| 15 Sitamarhi | 2,659 2 | 15,82,622 | Sitamarhi |
| 16 Darbhanga | 2,296 0 | 15,17,151 | Darbhanga |
| 17. Samastipur | 2,856 4 | 18,24,718 | Samastipur |
| 18 Madhubani | 3,526 6 | 18,92,039 | Madhubani |
| 19 Monghyr | 7,927 6 | 27,45,180 | Monghyr |
| 20 Bhagalpur | 5,656 0 | 20,91,103 | Bhagalpur |
| 21 Santhal Parganas | 14,129 0 | 31,86,908 | Dumka |
| 22 Begusarai | 1.899 4 | 11,47,449 | Begusarai |
| 23 Saharsa | 5,885 0 | 23,50,268 | Saharsa |
| 24 Purnea | 7,989 7 | 28,84,990 | Purnea |
| 25 Katihar | 3,023 3 | 10,56,873 | Katihar |
| 26 Palamau | 12,677 0 | 15,04,350 | Daltonganj |
| 27. Hazaribagh | 11,152 5 | 16,45,838 | Hazaribagh |
| 28 Giridih | 6,907 5 | 13,74,376 | Giridih |
| 29 Ranchi | 18,331 0 | 2C,11,445 | Ranchi |
| 30 Dhanbad | 2,994 0 | 14,66,417 | Dhanbad |
| 31 Singhbhum | 13,447 0 | 24,37,799 | Chaibasa |

## GUJARAT

*Area* : 1,95,984 sq. km — *Population* : 2,66,97,475
*Capital* : Gandhinagar — *Principal language* : Gujarati

AGRICULTURE Irrigated area forms 13.31 per cent of the total cultivated area of Gujarat The main food crops are bajra, jowar, rice and wheat. Important commercial crops are cotton, tobacco and groundnut.

[1]As on 15-10-1977

Production of foodgrains was about 40.28 lakh tonnes in 1976-77 as against 45.20 lakh tonnes in 1975-76. Production of sugarcane was 2.72 lakh tonnes, cotton 16.30 lakh bales and oil seeds 20.72 lakh tonnes in 1976-77.

Forests cover 8.33 per cent of the area of the state. Main forest products are teak, *khair, haldarvo* and bamboo. The state has constituted a Forest Development Corporation with an authorised capital of Rs 1 00 crore

INDUSTRY

Textiles (including ginning and pressing of cotton), tobacco manufacture, drugs and chemicals, engineering goods, machine tools, paper, cement and sugar are some of the important industries.

The discovery of oil and natural gas in Ankleshwar, Cambay and Kalol areas has put Gujarat on the country's oil map. The capacity of the refinery at Koyali has been expanded from 20 to 43 lakh tonnes a year A huge petro-chemical complex is being built up near Vadodara.

Apart from textiles, readymade garments and synthetic fabrics, the state is exporting salt, drugs and pharmaceuticals, and electrical and engineering goods.

IRRIGATION AND POWER

Important irrigation schemes implemented since 1947 include Ukai, Kadana, Kakrapara, Mahi Right Bank Canal, Shetrunji, Dantivada and Hathmati reservoir projects.

The total installed capacity, both hydel and thermal, at the end of September 1977 was 1,922 mw. Gujarat had only 117 electrified villages in 1951; the number increased to 7,377 by the end of September 1977 For irrigation, 1,40,955 pumpsets had been energised as against 2,460 in 1951

GOVERNMENT

*Governor* : K. K. Vishvanathan

Council of Ministers[1]

*Chief Minister* · Babubhai J. Patel
*Ministers* . Maneklal M Gandhi, Keshubhai S. Patel, Bhailalbhai G Contractor, Navinchandra M Barot, Popatlal M. Vyas, Lallubhai M. Sheth, Navalbhai N. Shah, Makrandbhai B. Desai, Dineshbhai V. Shah, Keshavbhai R. Patel, Smt. Hemaben S. Acharya, Rasikchandra D Acharya, Harisinh P. Chavda, Shankarbhai D. Vaghela, Bhanjibhai B Patel, Bhimabhai D Rathood and Chandubhai S Deshmukh.

Legislative Assembly[2]

*Speaker* . Kundanlal Dholakia
*Dy Speaker* . Manubhai Palkhiwala

High Court[2]

*Chief Justice* B J Diwan
*Judges* : S H Sheth, A D Desai, D. P. Desai, M. P. Thakkar, P. D. Desai, B K Mehta, A N Surti, M C. Trivedi, N H Bhatt and A M. Ahmadi

Public Service Commission[2]

*Chairman* · H K Solanki
*Members* : Dr. A. M. Malaowalla and M J. Chaudhri.

*Chief Secretary* : H K L. Capoor

[1]As on 23-1-1978 [2]As on 24-11-1977

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| District | Area (sq km) | Population (1971 census) | Headquarters |
|---|---|---|---|
| 1 Ahmadabad | 8,707 | 29,10,307 | Ahmadabad |
| 2 Amreli | 6,760 | 8,48,730 | Amreli |
| 3 Banas Kantha | 12,702 | 12,65,383 | Palanpur |
| 4 Bharuch | 9,045 | 11,09,601 | Bharuch |
| 5 Bhavnagar | 11,155 | 14,05,285 | Bhavnagar |
| 6 Gandhinagar | 649 | 2,00,642 | Gandhinagar |
| 7 Jamnagar | 14,125 | 11,11,343 | Jamnagar |
| 8 Junagadh | 10,607 | 16,56,677 | Junagadh |
| 9 Kheda | 7,194 | 24,51,387 | Kheda |
| 10 Kutch | 45,612 | 8,49,769 | Bhuj |
| 11 Mahesana | 9,027 | 20,92,468 | Mahesana |
| 12 Panchmahals | 8,866 | 18,48,804 | Godhra |
| 13 Rajkot | 11,203 | 16,24,072 | Rajkot |
| 14 Sabar Kantha | 7,390 | 11,87,637 | Himatnagar |
| 15 Surat | 7,745 | 17,86,924 | Surat |
| 16 Surendranagar | 10,488 | 8,45,454 | Surendranagar |
| 17 The Dangs | 1,683 | 94,185 | Ahwa |
| 18 Vadodara | 7,788 | 19,80,065 | Vadodara |
| 19 Valsad | 5,238 | 14,28,742 | Valsad |

## HARYANA

*Area* 44,222 sq km  *Population* : 1,00,36,808
*Capital* · Chandigarh  *Principal language* : Hindi

AGRICULTURE

Over 82 per cent of the people of Haryana are engaged in agricultural pursuits. Out of the total cultivable area of 37.49 lakh hectares in the state, 46 8 per cent was irrigated during 1975-76 The cultivated aiea during 1974-75 was 37 35 lakh hectares, out of which 47.6 per cent was irrigated area The state is surplus in foodgrains, particularly wheat, rice, bajra, barley and gram. Other important crops are sugarcane, oilseeds and cotton Production of foodgrains in 1976-77 was 52 95 lakh tonnes as against 50.38 lakh tonnes in 1975-76; production of sugarcane (gur) was 7 28 lakh tonnes in 1976-77 as against 6.87 lakh tonnes in 1975-76; production of cotton was 4 50 lakh bales in 1976-77 as against 4 39 lakh bales in 1975-76; production of oilseeds was 0.80 lakh tonnes in 1976-77 as against 0.79 lakh tonnes in 1975-76.

Forests cover about 3 3 per cent of the state's area

INDUSTRY

Some of the minerals found in small quantities are iron ore, limestone, china clay and marble. However, occurrence of graphite and quartzites has been reported at several places in the state

The major industries are cement, sugar, paper, cotton textiles, glassware, brassware, cycles, tractors, motor cycles, time-pieces, automobile tyres and tubes, sanitaryware, television sets, steel tubes, hand tools, cotton yarn, refrigerators, vanaspati ghee and canvas shoes. A factory of the central government undertaking, the Hindustan Machine Tools, which is producing tractors, is located at Pinjore.

IRRIGATION AND POWER

Haryana is beneficiary of the multipurpose projects on rivers Sutlej and Beas, where it shares the benefits with Punjab and Rajasthan The major irrigation projects of the state include the Western Yamuna Canal, the Bhakra Canal System and the Gurgaon Canal. The

state has completed lift irrigation schemes like Jui, Loharu and Sewani Canals. The total installed power capacity on 31 March 1976 was 612 mw from various hydel and thermal stations This includes Haryana's share from Bhakra Nangal and Indraprastha station extension project which are interlinked projects Haryana is the first state in India to achieve 100 per cent rural electrification. By March 1971, all the 6,731 villages had been electrified whereas in 1951 not a single village had electricity. For irrigation. 1,41,885 pumpsets/tube-wells had been energised by 1975-76 as against 743 in 1956

GOVERNMENT *Governor* · H S Brar

Council of Ministers[1]

*Chief Minister* Devi Lal
*Cabinet Ministers* . Mangal Sein, Preet Singh, Smt Kamla Devi, Virender Singh, Tara Singh Ram Singh, Satbir Singh and Smt Sushma Swaraj
*Chief Parliamentary Secretary* Jagan Nath

Legislative Assembly[1]

*Speaker* . Brig Ram Singh
*Dy. Speaker* Kanwar Vijay Pal Singh

High Court[1]

*Chief Justice* A D Koshal
*Judges* Surjit Singh Sandhawalia, Prem Chand Jain, Satish Chandra Mital, Debi Singh Tewatia, Bhopinder Singh Dhillon, Gurnam Singh, Mela Ram Sharma, Rajendra Nath Mittal, Sukhdev Singh Sidhu, Ajit Singh Bains, Kulwant Singh Tiwana Harbans Lal, Surinder Singh and Satya Prakash Goyal
*Registrar* Kuljit Singh Bhalla

Public Service Commission[1]

*Chairman* Harphool Singh
*Members* Braham Prakash Gupta and Ratti Ram Sharma

*Chief Secretary* S D Bhambri

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| District | Area (sq km) | Population (1971 census) | Headquarters |
|---|---|---|---|
| 1 Hissar | 6 331 | 11,27,525 | Hissar |
| 2. Bhiwani | 5 090 | 7,61,953 | Bhiwani |
| 3 Gurgaon | 4,889 | 13 72,197 | Gurgaon |
| 4 Jind | 3,311 | 7,72 111 | Jind |
| 5 Mahendragarh | 2,983 | 7,34,143 | Narnaul |
| 6 Ambala | 3,833 | 10,98,405 | Ambala |
| 7 Karnal | 3,725 | 9,88,437 | Karnal |
| 8 Kurukshetra | 3 738 | 8 62 899 | Kurukshetra |
| 9 Rohtak | 3,843 | 10 98,548 | Rohtak |
| 10 Sonepat | 2 200 | 6,86,986 | Sonepat |
| 11 Sirsa | 4 279 | 5 33,604 | Sirsa |

## HIMACHAL PRADESH

*Area* . 55,673 sq km *Population* 34,60 434
*Capital* Simla *Principal languages* Hindi and Pahari

AGRICULTURE Agriculture and horticulture are the mainstay of Himachal Pradesh's economy as 76 per cent of its people are engaged in these pursuits.

[1]As on 14-11-1977

Irrigated area forms only about 16.7 per cent of the net area sown. However, the agro-climatic conditions in the state are most suitable for growing a wide variety of fruits and cash crops like potato, ginger and vegetable seeds Wheat, maize and rice are the major foodcrops. The production of foodgrains during 1975-76 was 11.3 lakh tonnes as against 10 6 lakh tonnes during 1974-75

Besides apples, excellent variety of plums peaches and apricots are also grown. The total fruit production during 1976-77 was about 1 4 lakh tonnes.

Forests occupy 38.3 per cent of the area of the state. About one-third of the total revenue is earned from this source The main forest products include timber, fuel wood, gums and resin

INDUSTRY

Important minerals of Himachal Pradesh are rock salt, slate, gypsum, limestone, barytes, dolomite and pyrites

Himachal Pradesh is endowed with vast natural resources, cheap power and labour The state is now gradually making progress towards industrialisation Among major industries are Nahan Foundry, rosin and turpentine factories at Nahan and Bilaspur in the public sector and a brewery at Solan in the private sector. Himachal Fertilizers Ltd, another public sector undertaking commissioned in August 1975, has started commercial production of NPK balanced granulated fertilizers Besides, a television assembly plant at Solan Electronic Complex which was commissioned in January 1976, has started manufacturing television sets in the state A cement factory is being set up at Rajban in Sirmaur district In the small scale sector, microscopes, watch parts, clinical and industrial thermometers and hospital and heating equipments are being manufactured

Among the indigenous village industries are sheep rearing, wood carving and blacksmithy To encourage industry, the Himachal Pradesh Mineral and Industrial Development Corporation, the State Small Industries and Export Corporation, the Khadi and Village Industries Board and the Handicrafts and Handloom Corporation have been set up

IRRIGATION AND POWER

There are no major irrigation projects in the state. A medium irrigation project likely to irrigate an area of 5.200 hectares has been taken up in Sirmaur district. Among important power projects at present in hand are (i) Giri hydel project in Sirmaur district, (ii) Rukti micro-hydel scheme in Kinnaur district, (iii) Sissu micro hydel scheme in Lahul and Spiti district, (iv) Bassi augmentation project in Mandi district, and (v) Bhaba hydel project in Kinnaur district

Up to March 1977, 7,245 villages out of a total of 16,916 had been electrified and 1 415 pumpsets energised.

GOVERNMENT *Governor* : Amin-ud-din Ahmad Khan

Council of Ministers[1]

*Chief Minister* Shanta Kumar
*Cabinet Ministers* : Kishori Lal, Jagdev Chand, Daulat Ram Chauhan, Devi Singh and Bachitter Singh.
*Minister of State* : Km. Shyama Sharma
*Chief Parliamentary Secretary* · Roop Singh

---

[1]As on 5-10-1977

IRRIGATION AND POWER

Major irrigation schemes already completed are Kathua canal and Pratap canal which irrigate an area of 17,140 hectares. Under the Tawi lift irrigation scheme, which was commissioned in 1973-74, part benefits have already started accruing The state has taken up the Ravi canal project, a major irrigation scheme to irrigate a cropped area of about 54,000 hectares

Important power schemes implemented since 1947 are the Gander-Chenani, Kalakot and Upper Sind. The power projects under implementation include Lower Jhelum hydel project, Salal hydel project and Karrah micro hydel scheme.

The total installed capacity on 3 August 1976 was 103 63 mw. With the commissioning of the high voltage transmission lines between Srinagar and Pathankot in 1974, the power supply system in the Valley is linked with that of northern India.

The number of villages electrified by the end of 1975-76 was 2,086 as compared to nil in 1951

GOVERNMENT

*Governor* : L K. Jha

Council of Ministers[1]

*Chief Minister* . Sheikh Abdullah
*Cabinet Ministers* : Mirza M. A. Beg, D. D. Thakur, Sonam Narboo, G. M Shah, M. K. Tickoo and G. N. Kochak
*Ministers of State* : G. M. Bhadrawahi, Ghulam Qadir Mir, Harbhajan Singh, Bashir Ahmed, M. A Khan, Mohammad Shah, Parmanand and Tilak Raj Attri.
*Deputy Ministers* : B A Kichlu, Ghulam Ahmed Ganai, Ghulam Din Shah, Habib Ullah, Abdul Rashid Shaheen, Hissam Ud-Din Banday, Dillawar Mir, Mohammad Hussain and P. N Raju.

Legislative Council[1]

*Chairman* . Syed Hussain
*Dy. Chairman* : Sardar Gurmukh Singh

Legislative Assembly[1]

*Speaker* : Malik Mohi-ud-Din
*Dy. Speaker* . Janak Raj Gupta

High Court[2]

*Chief Justice* · Mian Jalal-ud-Din
*Judges* . A. S. Anand, G M Mir and I. K. Kotwal

Public Service Commission[1]

*Chairman* : A G. Kidwai
*Members* : Mohammad Amin, Nazir Ahmed Khan, Bharat Bushan and Pushkar Nath Kaul

*Chief Secretary* : S M Aga

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| *District* | *Area (sq. km)* | *Population (1971 census)* | *Headquarters* |
|---|---|---|---|
| 1 Anantanag (Kashmir South) | 5,382 | 8 32,280 | Anantanag |
| 2. Baramula (Kashmir North) | 7,458 | 7,75,724 | Baramula |
| 3 Doda | 11,691 | 3,42,220 | Doda |
| 4 Jammu | 3,165 | 7,31,743 | Jammu |
| 5 Kathua | 2,651 | 2,74 671 | Kathua |
| 6 Ladakh | 95,876 | 1,05,291 | Leh |
| 7 Punch | 1,658 | 1,70,787 | Punch |
| 8 Rajauri | 2,681 | 2,17,373 | Rajauri |
| 9 Srinagar | 3,013 | 8,27,697 | Srinagar |
| 10. Udhampur | 4,549 | 3,38,846 | Udhampur |

[1]As on 20-7-1977 [2]As on 21-1-1978

## KARNATAKA

| | |
|---|---|
| *Area* . 1,91,773 sq. km | *Population* : 2,92,99,014 |
| *Capital* · Bangalore . | *Principal language* · Kannada |

AGRICULTURE

Karnataka is predominantly agricultural. Of the cultivated area of 18.07 lakh hectares, 17.81 per cent is irrigated. Major food crops are rice, ragi, jowar, wheat, millets and pulses. The main cash crops are sugarcane, cotton, oilseeds, tobacco, coconut, arecanut, coffee, cashew, cardamom, pepper, oranges and grapes. Production of food-grains during 1976 was 70.02 lakh tonnes, sugarcane 99 lakh tonnes, oilseeds 3.79 lakh tonnes, cotton 4 50 lakh bales and tobacco 23,000 tonnes.

Forests cover 15.2 per cent of the area of the state. High quality timber, sandalwood, eucalyptus, teakwood and bamboo are the major forest products Other forest products are high quality rose-wood, softwood suitable for industrial purposes, and other valuable timbers.

INDUSTRY

The state is rich in mineral resources. Important among them are high grade iron ore, copper, manganese, chromite and china clay. Karnataka is the only state where gold mining is carried on. There are a number of big industries Machine tools, aircraft, electronic products, watches and telecommunication equipment are some of the items produced Important central government undertakings engaged in the production of these items are Hindustan Aeronautics, Hindustan Machine Tools, Bharat Electronics, Indian Telephone Industries, Bharat Earth Movers and National Aeronautical Laboratory. The State-owned Viswesvaraya Iron & Steel Ltd., Bhadravati, produces special steel and alloy steel with a rated capacity of 77,000 tonnes annually. Kudremukh Iron Ore Project is another biggest development project of the state Other flourishing industries are textiles, sugar, soap, chemical and pharmaceutical goods, fertilizer, paper, cement, glass, ceramics, porcelain and electrical goods.

Karnataka accounts for 85 per cent of the raw silk produced in the country. Apart from silk, its sandal soap and sandal oil are well known in world markets

IRRIGATION AND POWER

Karnataka has two large river basins, those of Krishna and Cauvery, besides a number of other rivers used both for irrigation and power generation The important irrigation schemes are Tungabhadra, Ghataprabha, Malaprabha, Upper Krishna, Bhadra, Harangi, Kabini Hemavathi and Bennethora projects.

The major power projects are Sharavati hydro-electric project, Shivasamudram hydro-electric project and the power project on Kali river, now under construction. The installed power capacity was 1,055.7 mw on 30 September 1977 The number of electrified villages stood at 17,840 at the end of November 1976 as compared to 551 in 1951 For irrigation, 2,32,480 tube-wells had been energised by 30 November 1976

GOVERNMENT *Governor* : Govind Narain

Council of Ministers[1]

*Chief Minister* D. Devaraj Urs

*Cabinet Ministers* K. H Ranganath, B. Basavalingappa, Azeez Sait,

[1]As on 10-4-1978

S. M. Yahya, K. Prabhakar, R. Gundu Rao, H C. Srikantaiah, G. Rame Gowda, Margada Mallappa, L G. Havanur, Devendrappa Ghalappa, B. Subbayya Shetty, R. S Patil and S Bangarappa.
*Ministers of State* : Smt. Manorama Madhwaraj, K H Srinivas, P. F. Rodrigues, Veerashetty Kushnoor and A B. Jakanur.

Legislative Council[1]
*Chairman* : N. A.
*Deputy Chairman* : B Bhaskar Shetty

Legislative Assembly[1]
*Speaker* · P. Venkataramana
*Deputy Speaker* : R G. Jagirdar

High Court[2]
*Chief Justice* : D M. Chandrashekhar
*Judges* K Bhimaiah, V. S Malimath, S R Range Gowda, E. S Ventaramaiah, K Jagannatha Shetty, M S Nesargi, D B Lal, M. K. Srinivasa Iyengar and M. V. Ventachalaiah

Public Service Commission[2]
*Chairman* . G Duggappa
*Members* : H L Nagegowda, A B Mariyappa, B P Mallaraj Urs, H Maharudraiah, B T Sansur and S H Ahmed.

*Chief Secretary* · N. Narasimha Rao

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| *District* | *Area (sq. km)* | *Population (1971 census)* | *Headquarters* |
|---|---|---|---|
| 1. Bangalore | 8,003 | 33,65,515 | Bangalore |
| 2 Belgaum | 13,410 | 24,23,342 | Belgaum |
| 3 Bellary | 9,898 | 11,22,686 | Bellary |
| 4 Bidar | 5,451 | 8,24,059 | Bidar |
| 5 Bijapur | 17,056 | 19,85,591 | Bijapur |
| 6 Chikmagalur | 7,199 | 7,36,647 | Chikmagalur |
| 7. Chitradurga | 10,852 | 13,97,456 | Chitradurga |
| 8 Coorg | 4,104 | 13,78,291 | Mercara |
| 9 Dharwar | 13,749 | 23,42,213 | Dharwar |
| 10 Gulbarga | 16,224 | 17,39,220 | Gulbarga |
| 11 Hassan | 6,823 | 11,02,370 | Hassan |
| 12 Kolar | 8,223 | 15,16,646 | Kolar |
| 13 Mandya | 4,958 | 11,54,374 | Mandya |
| 14. Mysore | 11,947 | 20,77,238 | Mysore |
| 15. North Kanara | 10,276 | 8,49,105 | Karwar |
| 16. Raichur | 14,005 | 14,15,740 | Raichur |
| 17. Shimoga | 10,548 | 13,01,485 | Shimoga |
| 18 South Kanara | 8,441 | 19,39,315 | Mangalore |
| 19. Tumkur | 10,606 | 16,27,721 | Tumkur |

## KERALA

*Area* : 38,864 sq. km — *Population* · 2,13,47,375
*Capital* · Trivandrum — *Principal language* Malayalam

AGRICULTURE
Irrigated area forms 21.26 per cent of the total cropped area in Kerala. The state has abundance of cash crops. Cashewnut, arecanut, coconut, cotton, oilseeds, pepper, sugarcane, rubber, coffee, tea, ginger and cardamom are grown extensively. Rice and tapioca are important food

[1] As on 3-7-1978 [2] As on 10-4-1978
N A —Not available

crops grown, though pulses are also grown in some areas. Production of rice was 13.65 lakh tonnes in 1975-76 as against 13.34 lakh tonnes in 1974-75. The production of rubber and coffee showed an increase of 3.28 per cent and 33.6 per cent respectively in 1975-76.

Forests occupy 23 per cent of the area of the state. The forest wealth consists of some well-known varieties of timber, such as, teak, blackwood, ebony, softwood and rosewood which are in great demand abroad and fetch a high price. The State Forest Development Corporation undertakes a scheme of raising plantations, such as eucalyptus and softwood required for various wood-based industries. The state accounts for about 38 per cent of the sea fish production. In 1975-76, 4.50 lakh tonnes of fish was netted. During 1975-76, the export of marine products fetched Rs 67.62 crores in foreign exchange.

INDUSTRY

Important minerals found in the state are ilmenite, rutile, monazite, zircon, sillimanite and clays, quartz sand and lime shell.

Important industries are coir, cashew, rubber, tea, ceramics, electrical and electronic appliances, telephone cables, transformers, bricks and tiles, drugs and chemicals, general engineering, plywood, splints and veneers, beedi and cigar, soaps, oils and fertilizers.

In recent years, a number of manufacturing units have sprung up for producing precision instruments, machine tools, petroleum and petroleum products, fertilizers and allied products, paints, aluminium, communication cables, rubber, rayon, pulp, paper, plywood, scooter, glass and non-ferrous metals.

Principal export products are cashew-nut, tea and coffee, pepper and other spices, lemon grass oil, seafoods, rosewood, coir and coir products and rubber products.

The Kerala State Industrial Development Corporation and Kerala Financial Corporation provide financial assistance to private industries while the Plantation Corporation of Kerala has undertaken large scale expansion of rubber and oil palm plantations.

IRRIGATION AND POWER

Major irrigation projects implemented since 1947 are Periyar Valley, Neyyar, Meenakara, Kanhirapuzha, Kuttiadi, Malampuzha and Peechi. Important power projects are Panniar, Sholayar, Sabarigiri, Sengulam, Poringalkuth, Neriamangalam and Idukki.

Heavy rainfall and a large number of swift flowing rivers and streams provide considerable potential for power generation. The total installed capacity in December 1976 was 1,011 mw from various hydel stations. The per capita consumption of power rose from 79.85 units in 1974-75 to 85.75 units in 1975-76.

GOVERNMENT

*Governor* : Jyothi Venkatachalam

Council of Ministers[1]

*Chief Minister* : A. K. Antony
*Cabinet Ministers* : K. Avukaderkutty Naha, Baby John, K. K. Balakrishnan, J. Chitharanjan, M. K. Hemachandran, E. John Jacob, Kandalottu Kunhamly, K. M. Mani, C H. Mohammed Koya, K. Narayana Kurup, Oommen Chandy, K. Pankajakshan, K. Sankaranarayanan and P. K. Vasudevan Nair.

Legislative Assembly[1]

*Speaker* : Chakkeeri Ahmedkutty
*Dy. Speaker* : P. K. Gopalakrishnan

[1]As on 10 10.1977

High Court[1]

*Chief Justice* : V. P. Gopalan Nambiyar
*Judges* : V. Balakrishnan Eradi, P. Subramanian Potti, P. Narayana Pillai, N. D. Namboodiripad, V. Khalid, G. Viswanatha Iyer, K. Bhaskaran, George Abraham Vadakkel, T. Chandrasekharan Menon, Km. P. Janaki Amma, K. K. Narendran and G. Balagangadharan Nair.
*Additional Judges* : S. K. Khader and T. Kochu Thommen.

Public Service Commission[1]

*Chairman* : T. M. Savankutty
*Members* : N. Ramachandran, Thirunallur Karunakaran, E. P. Antony, K. V. Kumaran, T. P. Joseph and Achuthraj Meloth.

*Chief Secretary* : G. Bhaskaran Nair

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| *District* | *Area (sq km)* | *Population (1971 census)* | *Headquarters* |
|---|---|---|---|
| 1 Alleppey | 1,884 | 21,25,722 | Alleppey |
| 2 Cannanore | 5,706 | 23,65,164 | Cannanore |
| 3. Ernakulam | 2,377 | 21,63,776 | Ernakulam |
| 4 Idukki | 5,087 | 7,65,608 | Idukki (Temporary at Kottayam) |
| 5. Kottayam | 2,196 | 15,39,030 | Kottayam |
| 6. Kozhikode | 3,729 | 21,06,249 | Kozhikode |
| 7 Malappuram | 3,638 | 18,56,362 | Malappuram |
| 8 Palghat | 4,400 | 16,85,342 | Palghat |
| 9 Quilon | 4,623 | 24,12,821 | Quilon |
| 10 Trichur | 3,032 | 21,28,797 | Trichur |
| 11. Trivandrum | 2,192 | 21,98,606 | Trivandrum |

## MADHYA PRADESH

*Area* : 4,42,841 sq. km — *Population* : 4,16,54,119
*Capital* : Bhopal — *Principal language* . Hindi

AGRICULTURE

The economy of Madhya Pradesh is agriculture-based. Nearly 83 per cent of the population lives in villages but only about 37.3 per cent of them are economically active Most of the agricultural area is rain-fed, the irrigated area being only 9.6 per cent of the cultivated area. The total cultivated area is 213.56 lakh hectares. The state is surplus in foodgrains and commercial crops. The main food crops are jowar, wheat, rice and gram Important among the commercial crops are oilseeds, cotton and sugarcane. The production of foodgrains was 1 20 crore tonnes in 1975-76 as compared to 47 lakh tonnes in 1951. The production of sugarcane and oilseeds was 2.47 and 8.46 lakh tonnes respectively during 1975-76. During the same period, the production of cotton was 2.72 lakh bales.

Forests cover nearly 30 per cent of the total area of the state.

INDUSTRY

The south-eastern and eastern areas of the state are rich in minerals. Coal, iron ore, limestone, dolomite, bauxite, copper phosphorite, felspar, asbestos, diamond and manganese ore are the principal deposits.

[1]As on 10-10-1977.

The major industries established in various parts of the state are the steel plant at Bhilai, the Bharat Heavy Electricals at Bhopal, the aluminium plant at Korba, the security paper mills at Hoshangabad, the currency printing press at Dewas, the newsprint mill at Nepanagar and Alkoloid factors, Neemuch, cement factory, Mandhar, Vehicle Factory, Ordnance Factory and Gun Carriage Factory and Pvt. Workshop, Jabalpur. There are in all 20 textile mills in the state. The number of heavy and medium industries in the state is 168 and the number of small scale industries in production is 18,636. Other industries include potteries, cement, sugar, straw board and paper, vegetable oil, refractories, potteries, textile machinery, steel casting and rerolling, industrial gases, synthetics and drugs, biscuit manufacturing, engineering tools, rayon and art silk Thirty-six out of forty-five districts in the state are categorised as industrially backward districts.

IRRIGATION AND POWER

Important irrigation projects of Madhya Pradesh are Chambal, Tawa, Barna, Hasdeo R B C., Mahanadi Reservoir, Bargi, Narmadasagar, Bansagar, Hasdeo Bango and Upper Wainganga An irrigation potential of 12 46 lakh hectares was achieved up to the end of the Fourth Plan. Additional irrigation potential of 1.32 lakh hectares was created during the first two years of the Fifth Plan. In addition, 48 medium schemes and 4,000 minor schemes have been completed so far. Madhya Pradesh has good potential of hydro-electric power generation. The total installed capacity of power, both hydel and thermal, was 1,012.5 mw in 1976-77, of which 819 50 mw was from thermal and 193 mw from hydro-electric power stations.

GOVERNMENT

*Governor* Niranjan Nath Wanchoo

Council of Ministers[1]

*Chief Minister* · V. K. Saklecha
*Cabinet Ministers* : Kailash Joshi, Ramhit Gupta, Shitala Sahai, Haribhau Joshi, Yeshwant Rao Meghawale, Laxmi Narayan Sharma, Jabar Singh, Shiv Prasad Chandpuria, Umrao Singh, Jayashree Banerjee, Ramanand Singh, Sakharam Patel, Sita Prasad Sharma, Anood Singh Maravi, Baliram Kashyap, Prabhunarayan Tripati, Laxminarayan Yadav, Pawan Dewan and Yaqoob Razqani.
*Ministers of State* . Rajendra Dharkar, Manharan Lal Pandey, Jagdish Gupta, Vibhash Chandra Banerjee, Parashuram Sahu, Nathuram Ahirwar, Sharas Chandra Jharia, Mrs Savita Bajpai, Ram Lal Chandrakar, Thakur Darbar Singh and Rama Shanker Singh.

Legislative Assembly[2]

*Speaker* . Mukund Sakharam Newalkar

High Court[2]

*Chief Justice* Shivdayal
*Judges* C Kondaiah, G. P. Singh, C M Lodha, G. J. Ojha, S. R. Vyas, K. K. Dube, N. C Dwivedi, R. K Tankha, J. S. Verma, G. G. Sohani, M. L Malik, R. L. Murab, B R. Dube, U N. Chachawat, S S Sharma, P D Mulye and J. P. Bajpai.

Public Service Commission[2]

*Chairman* : K. N. Sinha
*Members* : Ram Behari Lal, O. R. Siddique and Bharat Chandra Kabra
*Chief Secretary* : K. L. Pasricha

[1]As on 23-1-1978
[2]As on 7-10-1977

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| | District | Area (sq km) | Population (1971 census) | Headquarters |
|---|---|---|---|---|
| 1 | Balaghat | 9,245 | 9,77,583 | Balaghat |
| 2 | Bastar | 39,060 | 15,15,956 | Jagdalpur |
| 3 | Betul | 10,061 | 7,36,196 | Betul |
| 4 | Bhind | 4,467 | 7,93,955 | Bhind |
| 5 | Bilaspur | 19,905 | 24,40,962 | Bilaspur |
| 6 | Chhatarpur | 8,690 | 7,12,385 | Chhatarpur |
| 7. | Chhindwara | 11,824 | 9,89,413 | Chhindwara |
| 8 | Damoh | 7,301 | 5,73.263 | Damoh |
| 9. | Datia | 2,034 | 2 55,267 | Datia |
| 10 | Dewas | 7,014 | 5,94,336 | Dewas |
| 11. | Dhar | 8,149 | 8,42,400 | Dhar |
| 12 | Durg | 19,670 | 24,61,901 | Durg |
| 13 | East Nimar | 10,705 | 8,79,331 | Khandwa |
| 14 | Guna | 11,017 | 7,83,748 | Guna |
| 15 | Gwalior | 5,213 | 8,58,005 | Gwalior |
| 16 | Hoshangabad | 10,016 | 8,05,870 | Hoshangabad |
| 17 | Indore | 3,910 | 10,25,150 | Indore |
| 18 | Jabalpur | 10,164 | 16,86,030 | Jabalpur |
| 19. | Jhabua | 6,781 | 6,67,811 | Jhabua |
| 20. | Mandsaur | 9,726 | 9,61,522 | Mandsaur |
| 21. | Mandla | 13,257 | 8,73,577 | Mandla |
| 22. | Morena | 11,586 | 9,85,338 | Morena |
| 23. | Narsimhapur | 5,138 | 5,19,270 | Narsimhapur |
| 24. | Panna | 7,122 | 4,29,067 | Panna |
| 25. | Raigarh | 12,910 | 12,78,705 | Raigarh |
| 26. | Raipur | 21,251 | 26,13,531 | Raipur |
| 27. | Raisen | 8,396 | 5,53,026 | Raisen |
| 28. | Rajgarh | 6,163 | 6,44,346 | Rajgarh |
| 29. | Ratlam | 4,859 | 6,26,534 | Ratlam |
| 30. | Rewa | 6,315 | 9,77,894 | Rewa |
| 31. | Sagar | 10,246 | 10,62,291 | Sagar |
| 32. | Satna | 7,495 | 9,13,531 | Satna |
| 33. | Sehore | 9,015 | 10,84,923 | Sehore |
| 34. | Seoni | 8,752 | 6,68,352 | Seoni |
| 35. | Shahdol | 14,028 | 10,29,839 | Shahdol |
| 36. | Shajapur | 6,201 | 6,78,359 | Shajapur |
| 37. | Shivapuri | 10,285 | 6,76,567 | Shivpuri |
| 38. | Sidhi | 10,532 | 6,76,786 | Sidhi |
| 39. | Surguja | 22,337 | 13,26,439 | Ambikapur |
| 40. | Tikamgarh | 5,047 | 5,68,885 | Tikamgarh |
| 41. | Ujjain | 6,081 | 8,62,516 | Ujjain |
| 42. | Vidisha | 7,433 | 6,58,427 | Vidisha |
| 43. | West Nimar | 13,441 | 12,84,812 | Khargone |
| 44. | Bhopal | 2,763 | 5,72,169 | Bhopal |
| 45. | Rajnandgaon | 11,003 | 9,92,774 | Rajnandgaon |

## MAHARASHTRA

| | |
|---|---|
| *Area* 3,07,762 sq. km | *Population* 5,04,12,235 |
| *Capital* . Bombay | *Principal language* . Marathi |

AGRICULTURE About 70 per cent of the people in Maharashtra depend on agriculture. Irrigated area forms only about 9 9 per cent of the total cropped area The principal food crops are wheat, rice, jowar, maize, bajra and pulses Production of foodgrains during 1975-76 totalled 91.19 lakh tonnes. Important cash crops are cotton, oilseeds, sugarcane, groundnut and tobacco and their production during 1975-76 was : sugar-

cane (gur) 20.60 lakh tonnes, cotton 7.81 lakh bales and groundnut 6.71 lakh tonnes.

Of the total area, forests occupy 17.4 per cent.

INDUSTRY

Maharashtra is endowed with sizeable deposits of iron ore, coal, manganese ore, bauxite and limestone. Manganese ore in the Vidarbha region has enabled the state to develop ferro-manganese industry. An electro-smelting factory has been set up in Chandrapur district.

There are several large-scale industries including textiles, ginning and pressing, silk, rayon, synthetic fabrics and vegetable products. Most of the textile mills are located in Bombay. Maharashtra is also a major sugar-producing state. Important chemical industries include nitrogenous fertilizers, superphosphates, petro-chemicals, drugs and pharmaceuticals and photographic chemicals.

Various types of engineering goods, such as, machine tools, steel and malleable iron castings, welding electrode ball-bearings and agricultural implements are manufactured for domestic consumption as well as for export. Maharashtra leads in the motion picture industry. It also leads in the sophisticated field of electronics. Santacruz Electronics Export Processing Zone, a free trade zone, for 100 per cent export of electronic goods has started functioning near the airport at Bombay. A Rs 2-crore project to manufacture industrial files is being set up at Ratnagiri. A number of defence and public sector industries are also located in the state.

IRRIGATION AND POWER

Since 1947, seven projects viz. Vir, Ghod, Girna Purna, Pus, Bagh and Itiadoh have been completed. Irrigation potential on a large scale has been created on Mula Kal and Tulshi projects and these projects are expected to be completed during the current plan period. In addition, partial potential of 5 major projects viz, Khadakwasla, Jayakwadi St. I, Upper Godavari, Krishna (Dhom) and Pench has been created. Further, partial potential for the first time has been created on 3 major projects, viz. Kukadi, Ujani (Bhima) and Jayakwadi St. II. During the Plan era of 26 years, 81 medium projects have been completed.

The major power projects are Koyna, Purna, Trombay, Vaitarna, Tarapur, Tata Hydro, Nasik and Koradi. The total installed capacity in March 1976 was 2,350 mw. This includes the capacity of the atomic power station functioning at Tarapur since 1969. Maharashtra had only 38 electrified villages in 1951, the number increased to 21,052 by March 1977. For irrigation 4,48,796 pumpsets/tube-wells had been energised by 31 March 1977 compared to 142 in 1951.

GOVERNMENT

*Governor* : Sadiq Ali

Council of Ministers[1]

*Chief Minister* : Vasantrao B. Patil

*Cabinet Ministers* : Nasikrao K Tripude, S. A Solanke, Smt Prabha Rau, M. D. Chaudhari, Y. J. Mohite, B. J. Kale, R. S. Adik, S. G. Pawar, J A Darda, S B. Patil, P. M. Dekate, Sudhakar R. Naik and B W. Hire

*Ministers of State* : U. N. Gaikwad, R. M. Patel, S F. P. S. M. Pasha, T. L Bhosle, S. S Shinde, S. S. Patil, S. G. Gholap, R. B. Lingade, R. V. Tripathi, Khan Mohammad Azhar Hussain, A. T. Pawar, R. V. Borade, S. R. Gangane and D. R. Meghe.

[1]As on 13-10-1977.

Legislative Council[1] — *Chairman* : R. S. Govai
*Deputy Chairman* : N. A.

Legislative Assembly[1] — *Speaker* : Shivraj Patil
*Deputy Speaker* : Gajanandrao Garud

High Court[2] — *Chief Justice* : Ramanlal Maneklal Kantawala
*Judges* : Vidyaranya Dattatraya, Tulzapurkar, Balkrishna, Narhar Deshmukh, Venkat Shrinivas Deshpande, Dinshah Pirosha Madon, Madhukar Narhar Chandurkar, Madhukar Shripad Apte, Gopalkrishna Nagappa Vaidya, Shankarrao Bhimrao Bhasme, Madhukar Hiralal Mania, Sharadchandra Krishnaprasad Desai, Sharad Martand Hajarnavis, Bhaskar Annaji Masodkar, Chandrashekhar Shankar Dharmadhikari, Prakash Shivlal Shah, Bhaskar Mukund Sapre, Nijaguni Babanna Naik, Devidatta Mangesh Rege, Reghunandan Lal Aggarwal, Bakhtavar Lentin, Parshuram Babaram Sawant, Atmaram Ramdas Shimpi, Chintaman Tukaram Dighe, Bhalchandra Chintaman Gadgil, Manmohan Dashrath Kambli, Abbasali Aggarali Ginwala and Raghavendra Anantacharya Jahagirdar.

Public Service Commission[2] — *Chairman* . M N. Wankhede
*Members* : K. G. Deshmukh, M. G. Mane and L S Sundararaja

*Chief Secretary* : S. V. Bhave.

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| | *District* | *Area (sq km)* | *Population (1971 census)* | *Headquarters* |
|---|---|---|---|---|
| 1 | Ahmadnagar | 17,035 | 22,69,117 | Ahmadnagar |
| 2 | Akola | 10,567 | 15,01,478 | Akola |
| 3. | Amravati | 12,210 | 15,41,209 | Amravati |
| 4 | Aurangabad | 16,200 | 19,71,006 | Aurangabad |
| 5. | Bhandara | 9,214 | 15,85,580 | Bhandara |
| 6 | Bhir | 11,227 | 12,86,122 | Bhir |
| 7. | Buldhana | 9,745 | 12,62,978 | Buldhana |
| 8. | Chandrapur | 25,641 | 16,40,137 | Chandrapur |
| 9 | Dhulia | 13,143 | 16,62,181 | Dhulia |
| 10 | Greater Bombay | 603 | 59,70,575 | Bombay |
| 11 | Jalgaon | 11,771 | 21,23,121 | Jalgaon |
| 12 | Kolaba | 7,198 | 12,63,003 | Alibagh |
| 13 | Kolhapur | 8,059 | 20,48,049 | Kolhapur |
| 14 | Nagpur | 9,928 | 19,42,688 | Nagpur |
| 15. | Nanded | 10,492 | 13,97,762 | Nanded |
| 16. | Nasik | 15,582 | 23,69,221 | Nasik |
| 17 | Osmanabad | 14,117 | 18,96,687 | Osmanabad |
| 18 | Parbhani | 12,489 | 15,06,771 | Parbhani |
| 19 | Pune | 15,640 | 31,78,029 | Pune |
| 20 | Ratnagiri | 13,040 | 19,90,583 | Ratnagiri |
| 21 | Sangli | 8,563 | 15,39,820 | Sangli |
| 22. | Satara | 10,492 | 17,27,376 | Satara |
| 23. | Sholapur | 15,021 | 22,53,840 | Sholapur |
| 24 | Thana | 9,553 | 22,81,664 | Thana |
| 25. | Wardha | 6,307 | 7,79,562 | Wardha |
| 26. | Yeotmal | 13,925 | 14,23,677 | Yeotmal |

[1]As on 3-7-1978 [2]As on 13-10-1978
N. A.—Not available

## MANIPUR

| | |
|---|---|
| *Area* : 22,256 sq. km | *Population* : 10,72,753 |
| *Capital* : Imphal | *Principal language* : Manipuri |

AGRICULTURE The main occupation of 66 per cent of the population of Manipur is agriculture. Nearly 92 per cent of the total land area is hilly and covered with forests. Forest reserves are being developed by planting better species of timber. Bamboo is found in large quantities. In the Jiri and Barak river drainage area alone, bamboos cover an estimated area of 2,585 sq. km yielding 3,00,000 tonnes annually. Main crop is paddy, while wheat and maize are also grown in some areas. Orchards are also being set up. The production of foodgrains increased from 2.80 lakh tonnes in 1975-76 to an estimated 2.94 lakh tonnes in 1976-77.

INDUSTRY The state has no large scale industry. Handloom weaving is the largest single cottage industry. Other cottage industries are sericulture, bamboo and cane articles, carpentry, blacksmithy, leather goods, edible oil crushing, rice milling and gur and khandsari.

To accelerate the development of small scale industries. an industrial advisory board has been set up and the jurisdiction of Assam Financial Corporation extended to Manipur. At Takyelpat near Imphal, an industrial estate is being set up.

IRRIGATION AND POWER Irrigation is done through minor irrigation works by constructing weirs across running streams for better distribution of water during the monsoons.

Loktak is the only major power project in the state The total installed capacity of power, both hydel and thermal, in 1976-77 was 10,338 kw. Manipur had only nine electrified villages before 1951; the number increased to 235 by 31 March 1977.

GOVERNMENT *Governor* · L P. Singh

Council of Ministers[1]

*Chief Minister* : Yang Mascho Shaiza
*Cabinet Ministers* : Md. Alimuddin. Salam Tombi Singh. Kh. Chaoba and Ngurdinglien.
*Ministers of State* : W. Kamol Singh, W. Nipamacha Singh, Kh. Nimaichand Singh, Md. Ashraf Ali and R. K. Thekho.

Legislative Assembly[2]

*Speaker* : L. Chandramani Singh
*Dy. Speaker* : Ojoy Singh

High Court[1]

The jurisdiction of Gauhati High Court extends over Manipur. For list of judges, see under Assam

Public Service Commission[2]

*Chairman* : D. Krishna Ayaar
*Members* : S. Larho and K. Gourakishore Singh.

*Chief Secretary* : H. S. Butalia

[1]As on 7.10.1977. [2]As on 3.7 1978

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| | Districts | Area (sq km) | Population (1971 census) | Headquarters |
|---|---|---|---|---|
| 1 | Manipur Central | 2,230 | 7,24,537 | Imphal |
| 2 | Manipur East | 4,409 | 62,229 | Ukhrul |
| 3 | Manipur North | 3,417 | 1,04,175 | Senapati |
| 4 | Manipur South | 4,581 | 98,114 | Churachandpur |
| 5 | Manipur West | 4,344 | 44,975 | Tamenglong |
| 6 | Tengnoupal | 3,375 | 38,723 | Chandel |

## MEGHALAYA

*Area* . 22,489 sq km
*Capital* · Shillong
*Population* . 10,11,699
*Principal languages* . Khasi, Jaintia and Garo

AGRICULTURE

Over 80 per cent of the people of Meghalaya are engaged in agricultural pursuits Irrigated area is about 27 per cent of the cultivated area. The principal crops are potato, *tezpata,* sugarcane, oilseeds, cotton, jute, *mesta* and arecanut Selected areas have been earmarked for growing high-yielding varieties of paddy, wheat and maize In the Khasi and Jaintia Hills districts fruits and vegetables are also grown and special programmes have been undertaken to develop horticulture. The production of foodgrains is around 1,30,000 tonnes annually. The annual production of cash crops is estimated to be · jute 50,000 bales, potato 71,000 tonnes and tapioca 5,000 tonnes The state is making good progress in horticulture It produces about 70,000 tonnes of pineapples, 80,000 tonnes of oranges and 35,000 tonnes of bananas annually.

Forests and forest-products are the chief resources of the state. Economic planations of industrial and commercial use are being undertaken extensively

INDUSTRY

The mineral wealth of the Khasi Hills, Jaintia Hills and Garo Hills districts includes coal, sillimanite, limestone, dolomite, fire clay. fetspat, quartz and glass sand. Ninety-five per cent of India's total output of sillimanite is produced in the Khasi Hills district The Garo Hills district has deposits of coal, limestone, fire clay and light coloured sandstone. The estimated reserves of coal in the state are about 12,000 lakh tonnes and limestone 21,000 lakh tonnes.

The factory at Cherrapunjee produces 250 tonnes of cement every day and its capacity is being expanded to 930 tonnes a day A timber treatment plant is being set up at Darugiri in Garo Hills Several mineral-based industries are coming up A plywood factory and a beverages factory have already been set up.

IRRIGATION AND POWER

There are at present three hydel projects with a total installed capacity of 65 2 mw. One hydel project and a thermal plant are under construction The state had electrified 388 villages up to the end of 1977. The area under minor irrigation has increased from 3,000 hectares in 1969-70 to 16,000 hectares in 1976-77.

GOVERNMENT

*Governor* : L P Singh

Council of Ministers[1]

*Chief Minister* : D. D. Pugh
*Cabinet Ministers* : S. D. Khongwir, M. N. Majaw, B. P. Pakem, J. D. Pohrmen, B. W. Momin, Y. F. Lynagdoh, H. Hadem, E. Iawphniaw, Jackman Marak, Jenden Marak and P. R. Kyndiah.

Legislative Assembly[1]

*Speaker* : R. S. Lyngdoh
*Dy. Speaker* : Singjan Sangma

High Court[1]

The jurisdiction of Gauhati High Court extends over Meghalaya. For list of Judges, see under Assam.

Public Service Commission[1]

*Chairman* : Godwin Clinton Momin
*Member* : Owenton Roy Thangkhiew

*Chief Secretary* : Ramesh Chandra

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| *District* | *Area (sq. km)* | *Population (1971 census)* | *Headquarters* |
|---|---|---|---|
| 1. East Khasi Hills<br>2. West Khasi Hills | 11,168·1 | 4,91,209 | Shillong<br>Nongstoin |
| | | | Williamnagar |
| 3. East Garo Hills<br>4 West Garo Hills | 8,084·0 | 4,06,615 | Tura |
| 5. Jaintia Hills | 3,295·5 | 1,13,875 | Jowai |

*Note* : The total area figures of the districts will not tally with the state figures because the former represents land used and are derived from the figures supplied by the State Directorate of Land Records

## NAGALAND

*Area* : 16,527 sq. km *Population* : 5,16,449
*Capital* : Kohima

AGRICULTURE

Agriculture is the main occupation of 90 per cent of the population of Nagaland. Rice is the only important foodgrain grown in the state. The total production of rice was 60,820 tonnes in 1973-74 as against 90,000 tonnes in 1972-73. The total cropped area under rice in 1973-74 was 63,000 hectares

Forests cover 17.56 per cent of the area of the state and they contribute considerably to the revenues.

INDUSTRY

There is a sugar mill with a crushing capacity of 1,200 tonnes per day at Dimapur. The Nagaland Forest Products Ltd. at Tijit has gone into production. A paper mill with a production capacity of 100 tonnes of paper per day and a distillery unit at Dimapur are being set up. A factory for the production of decorative and commercial plywood is also coming up. Handloom and sericulture are the important cottage industries There are six weaving-*cum*-production centres, three cottage industries-*cum*-production centres, five sericulture farms, one handicraft training-*cum*-production centre and three small-scale industries service centres.

[1]As on 14-3-1978

IRRIGATION AND POWER

Minor irrigation works in the state are mostly meant to divert small hill streamlets to irrigate valleys used for rice cultivation.

Total installed capacity of power up to 31 March 1976 was 2,126 kw. Out of 814 villages in Nagaland, the number of electrified villages on 31 March 1976 was 176 compared to nil in 1951.

Council of Ministers[1]

*Chief Minister* : Vizol
*Dy. Chief Minister* : S. C. Jamir.
*Cabinet Ministers* : Vamuzo, Huska Sumi and L. Lungalang
*Ministers of State* : Rushulo, Noka, Mhonshan Murry, Bendang Toshi, K. L. Chishi, Sentichuba and K. Zungkum.

High Court

The jurisdiction of Gauhati High Court extends over Nagaland. For list of judges, see under Assam

Public Service Commission

*Chairman* : L. M. Bhatia
*Member* · L. Medom

*Chief Secretary* : H. Zopianga

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| District | Area (sq km) | Population (1971 census) | Headquarters |
|---|---|---|---|
| 1. Kohima | n a | 1,30,610 | Kohima |
| 2 Mokokchung | n a. | 83,852 | Mokokchung |
| 3 Mon | n a. | 64,140 | Mon |
| 4 Phek | n a. | 44,524 | Phek |
| 5 Tuensang | n a. | 1,08,863 | Tuensang |
| 6 Wokha | n a. | 37,297 | Wokha |
| 7. Zonheboto | n a. | 47,093 | Zonhebuto |

## ORISSA

*Area:* 1,55,782 sq. km — *Population*· 2,19,44,615
*Capital:* Bhubaneswar — *Principal language:* Oriya

AGRICULTURE

Over 76 per cent of the people in Orissa are dependent on agriculture. Out of the total cropped area of 71 30 lakh hectares, 16 lakh hectares were irrigated by the end of 1974-75. Rice, pulses, oilseeds, jute, *mesta,* sugarcane, maize, jowar are important crops. During 1975-76, the production of foodgrains was 55 70 lakh tonnes as against 39.76 lakh tonnes during 1974-75. The production of rice during 1975-76 was 45.32 lakh tonnes; wheat 1 07 lakh tonne, sugarcane 2.97 lakh tonnes, oilseeds 2.60 lakh tonnes and jute 4 92 lakh bales.

Forests cover 67.92 lakh hectares or 43 per cent of the area of state Main forest products are *sal,* teak, asan, *kurum,* peasal, bamboo and *kendu* leaves. Lac, tusser and medicinal plants like nux vomica and rauwolfia serpentina are available from certain forests. Seeds of *sal,* available in abundance, have recently become an economic product of the forests *Kendu* leaf trade has been nationalised.

INDUSTRY

Orissa is a very important mineral bearing state in the country. Important minerals found in the state include iron ore, manganese ore, lime-

[1]As on 23-1 1978. n a —Not available.

stone, dolomite, chromite, non-coking coal, bauxite, graphite, china clay, nickel ore, vanadium ore, fire clay and mineral sands. The total production of minerals in 1975 was about 143 lakh tonnes.

Since Independence, 49 large industries have been set up in the state in the public and private sectors. Most of them are mineral based. Among them are the Rourkela steel plant, a pig iron plant at Barbil and a ferro-chrome plant at Jaipur Road, two ferro-manganese plants, a ferro-silicon plant and an aluminium smelter plant. The other mineral based industries are two refractory plants and two cement plants. An oxygen plant, an alloy steel casting plant and two jute twine plants have been newly set up. Two solvent extraction plants have been set up at Bhadrak and Rairangpur.

There are three large paper mills at Raigada, Choudwar and Brajarajnagar. The Hindustan Steel Ltd has also a fertilizer plant at Rourkela. Chemical industries include a caustic soda plant and a salt manufacturing unit at Ganjam and an industrial explosives plant at Rourkela.

Other industries of importance are two large sugar plants, one at Raigada and the other at Asha, the latter in the co-operative sector, a glass works at Baranga, a heavy machine tool plant at Kansbahal, a refrigerator manufacturing unit at Choudwar, a re-rolling mill at Hirakud and three textile mills at Choudwar, Jharsuguda and Bargarh, the last one in the co-operative sector, a phosphatic fertilizer plant at Rourkela, a *sal* seed extraction unit in Mayurbhanj district and a dichromatic plant in Cuttack district.

IRRIGATION AND POWER

Irrigation facilities in the state have expanded considerably since 1947. Irrigation facilities were provided to over 11.20 lakh hectares of land through different sources, viz. major, medium and minor irrigation projects including lift irrigation points. By the end of Fourth Plan, irrigation benefit was provided to 7,71,420 hectares of land. By the end of 1975-76, 2,332 lift irrigation projects have been energised creating irrigation potential for 51,700 hectares. These include 795 tube wells and 1,537 river lifts. A Rs 750-crore groundwater utilisation scheme is also proposed to be taken up. By the end of March 1976, 1,83,000 wells were sunk. This created irrigation potential for 1,37,500 hectares.

The Hirakud Dam project is a multi-purpose river valley project with the objectives of power generation (270 mw), flood control navigation and irrigation. Balimela Dam, Machhkund and Talcher thermal stations are the other important power projects.

The total installed capacity of power, both hydel and thermal, by March 1977 was 921.5 mw. Orissa had 25 electrified villages in 1955-56; the number increased to 13,061 by the end of March 1977. As many as 4,674 lift irrigation points had been energised by the end of March 1977.

GOVERNMENT

*Governor* : Bhagvat Dayal Sharma

Council of Ministers[1]

*Chief Minister* : Nilamoni Routroy
*Cabinet Ministers* : Pratap Chandra Mohanty, Prahallad Millick, Pradipta Kishore Das, Dr. Ram Prasad Mishra, Natabar Pradhan, Biswabhusan Harichandan and Harischandra Buxipatra

[1]As on 15 10.1977

*Ministers of State* : Birabhadra Singh, Ghasiram Majhi, Adwait Prasad Singh, Saharei Oram, Ignes Majhi and Harihar Swain.

Legislative Assembly[1]

*Speaker* · Satyapriya Mohanty
*Dy. Speaker* : Surendranath Naik

High Court[1]

*Chief Justice* . S. K. Ray
*Judges* : S Acharya, R. N. Mishra, B. K Ray, K. B. Panda, P. K. Mohanty and N K. Das.

Public Service Commission[1]

*Chairman* N. K. Ray
*Members* . T. Sangana and G. C Dash.
*Chief Secretary* : K. Ramamurty

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| | *District* | *Area (sq km)* | *Population (1971 census)* | *Headquarters* |
|---|---|---|---|---|
| 1 | Balasore | 6,394 | 18,30,504 | Balasore |
| 2 | Baudh Khondmals | 11,070 | 6,21,675 | Phulbani |
| 3 | Bolangir | 8,903 | 12,63,657 | Bolangir |
| 4 | Cuttack | 11,211 | 38,27,678 | Cuttack |
| 5 | Dhenkanal | 10,826 | 12,93,914 | Dhenkanal |
| 6 | Ganjam | 12,527 | 22,93,808 | Chhatrapur |
| 7 | Kalahandi | 11,835 | 11,63,869 | Bhawanipatna |
| 8 | Keonjhar | 8,240 | 9,55,514 | Keonjhar |
| 9. | Koraput | 26,960 | 20,43,281 | Koraput |
| 10 | Mayurbhanj | 10,412 | 14,34,200 | Baripada |
| 11 | Puri | 10,159 | 23,40,859 | Puri |
| 12 | Sambalpur | 17,570 | 18,44,898 | Sambalpur |
| 13. | Sundargarh | 9,675 | 10,30,758 | Sundargarh |

## PUNJAB

| | |
|---|---|
| *Area*: 50,362 sq km | *Population*, 1,35,51,060 |
| *Capital* Chandigarh | *Principal language* : Punjabi |

AGRICULTURE

About 86 per cent of the total geographical area of Punjab is under cultivation. About 76 per cent of the population is engaged in agricultural pursuits The state is surplus in foodgrains, especially wheat and rice Other main foodgrains are maize, bajra, jowar, gram, barley and pulses Major cash crops are oilseeds, sugarcane, tobacco, cotton and potatoes The production of foodgrains in 1976-77 was 92.15 lakh tonnes as against 87.98 lakh tonnes in 1975-76.

The state launched Integrated Rural Development Programme in November 1977 which is aimed to provide gainful employment to the villagers and to revive the traditional rural industries and trades

Forests cover an area of 2,05,626 hectares or 4 per cent of the area of the state

INDUSTRY

Punjab is the home of small-scale industries Sericulture, footwear machine tools, bicycle parts, sewing machines and parts, plastic goods, pipes, nuts and bolts, wood and machine screws are some of the important small-scale industries On 31 March 1977, the number of portant small scale units was 43,030. Punjab also produces 70 per cent of the country's woollen hosiery.

Some of the major industries established recently are being established through the efforts of the Punjab Industrial Development Corporation are tractors, dry cell batteries, polyester fibres. nylon, automobile

[1]As on 15-10-1977

tyres and tubes, synthetic detergents, scooters, breweries, fertilizers, steel billets, TV sets, electronic components and precision instruments. The Nangal fertilizer factory is a major central government undertaking in the state. The Centre is also setting up a naphtha-based fertilizer factory at Bhatinda.

IRRIGATION AND POWER

Important irrigation works, implemented since 1947, are the Bhakra Nangal Dam, Bhakra canals, Harike Barrage with a new lined canal called Sirhind Feeder, Roop Nagar Headworks and remodelling of Madhopur Headworks into a barrage. The Madhour-Beas link was constructed to transfer the surplus waters of river Ravi to Beas. A similar project, the Sutlej-Beas link project, is in an advanced stage of construction.

The second unit of Guru Nanak Thermal Power Plant at Bhatinda was commissioned in October 1975. The Pong Dam on river Beas is an important hydro-electric project which is under construction.

The total installed power capacity, both hydel and thermal, on 31 March 1976 was 7,06,486 kw and steam capacity 12,530 kw. Punjab had only 369 electrified towns and villages in 1956. By the end of May 1976, all the 12,126 villages were electrified. For irrigation, 4,50,000 pumpsets/tube-wells till 31 March 1976 were energised as compared to 3,095 in 1956.

GOVERNMENT

*Governor* : Jai Sukh Lal Hathi

Council of Ministers[1]

*Chief Minister* : Parkash Singh Badal
*Cabinet Ministers* : Balramji Dass Tandon, Atma Singh, Hit Abhilashi, Balwant Singh, Jaswinder Singh Brar, Harbhajan Singh, Jiwan Singh, Umranangal, Randhir Singh Cheema, Sukhjinder Singh, Satwant Kaur, Des Raj and Balwinder Singh
*Ministers of State* : Sukhdev Singh Dhindsa, Dalip Singh Talwandi and Des Raj

Legislative Assembly[1]

*Speaker* : Ravi Inder Singh
*Deputy Speaker* : Panna Lal Nayyar

High Court[1]

Punjab and Haryana have a common High Court. For list of judges, see under Haryana.

Public Service Commission[1]

*Chairman* : Jaswant Rai Bansal
*Members* : Shiv Dev Singh, Onkar Singh Kalkat, Smt. Santosh Chaudhry, Niranjan Singh Mitha and Nar Narain Singh.

*Chief Secretary* : S. S. Puri.

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| | *District* | *Area (sq km)* | *Population (1971 census)* | *Headquarters* |
|---|---|---|---|---|
| 1. | Amritsar | 5,025 | 18,35,500 | Amritsar |
| 2. | Bhatinda | 5,564 | 10,27,293 | Bhatinda |
| 3. | Faridkot | 5,746 | 11,51,738 | Faridkot |
| 4. | Ferozepore | 5,923 | 10,44,936 | Ferozepore |
| 5. | Gurdaspur | 3,557 | 12,29,249 | Gurdaspur |
| 6. | Hoshiarpur | 3,887 | 10,52,153 | Hoshiarpur |
| 7. | Jullundur | 3,396 | 14,54,501 | Jullundur |
| 8. | Kapurthala | 1,634 | 4,29,514 | Kapurthala |
| 9. | Ludhiana | 3,793 | 14,19,421 | Ludhiana |
| 10. | Patiala | 4,669 | 12,11,303 | Patiala |
| 11. | Ropar | 2,086 | 5,48,802 | Ropar |
| 12. | Sangrur | 5,096 | 11,47,650 | Sangrur |

[1]As on 26-12-1977

## RAJASTHAN

| *Area* : 3,42,214 sq. km | *Population* ; 2,57,65,806 |
|---|---|
| *Capital* : Jaipur | *Principal languages* : Rajasthani and Hindi |

AGRICULTURE Total irrigated area in Rajasthan is about 29.34 lakh hectares while the sown area is about 167.60 lakh hectares. Agricultural production is mainly dependent on rainfall. The principal crops are jowar, bajra, maize, gram, wheat, oilseeds, cotton, sugarcane and tobacco. The production of foodgrains in 1976-77 was 74.80 lakh tonnes. Production of sugarcane went up from 15.56 lakh tonnes in 1975-76 to 19 50 lakh tonnes in 1976-77. The production of oilseeds was 3.43 lakh tonnes in 1976-77. The production of cottton was 3.48 lakh bales in 1976-77.

Forests cover 34,420 sq. km of the state's area.

INDUSTRY Rajasthan accounts for the country's entire output of lead and zinc concentrates, emeralds and garnets. Similarly, 92 per cent of India's gypsum, 90 per cent of silver ore, 75 per cent of asbestos and felspar and 20 per cent of mica are mined here. It has rich salt deposits at Sambhar and other places. Copper mines are situated at Khetri and Dariba.

Textile, rugs and woollen goods, sugar, cement, glass, sodium producing plant, oxygen and acetylene producing units, manufacture of pesticides, insecticides and dyes are some of the major industries. Other enterprises include the manufacture of caustic soda, calcium carbide, nylon and tyre cord and copper smelting. Among the important central government undertakings in the state is the Precision Instruments factory at Kota.

Important handicrafts are marble work, woollen carpets, jewellery, embroidery, articles of leather, pottery and brass embossing.

IRRIGATION AND POWER The major irrigation schemes implemented since 1947 are the Kota Barrage and Rana Pratap Sagar, both inter-state projects in collaboration with Madhya Pradesh. The Rajasthan Canal will be the longest in the world when completed. It will irrigate about 13 lakh hectares of land in the desert districts Besides a number of small and medium irrigation schemes, the state is benefited from Bhakra Nangal Project, Gandhi Sagar Dam and Beas project. Mahi project is also under progress

The major power projects are the Jawahar Sagar and Rana Pratap Sagar. Power generation has increased from 125.05 M. kwh in 1960 to 3,011 M. kwh in 1976-77. A two unit nuclear power station is being developed at Kota, the first unit of which has started generating power. Rajasthan had only 43 electrified villages and towns in 1951; the number increased to 8,518 in March 1977. For irrigation, 1,08,080 pumpsets/tube-wells have been energised.

GOVERNMENT *Governor* : Raghukul Tilak

Council of Ministers[1] *Chief Minister* : Bhairon Singh Shekhawat

*Cabinet Ministers* : Master Adityendra, Prof. Kedarnath Sharma,

[1]As on 5-10-1977

Sampat Ram, Trilok Chand Jain and Lalit Kishore Chaturvedi.

*Ministers of State* : Mrs. Vidya Pathak, Mahboob Ali, Kailash Meghwal and Vigyan Modi

Legislative Assembly[1]

*Speaker* : Laxman Singh

*Dy Speaker* : Ram Chandra Jat

High Court

*Chief Justice* : Ved Pal Tyagi
*Judges* : A. P. Sen, Sohan Nath Modi, Mohan Lal Joshi, K. D. Sharma, D. P. Gupta, M. L. Shrimal, Mangilal Jain and P. D. Kudal.
*Additional Judge* : Ramji Lal Gupta

Public Service Commission[1]

*Chairman* : Mohd. Yakub
*Members* : Dhuleshwar Meena, H. D. Gupta, Nathu Lal Jain and Ram Singh Chouhan.

*Chief Secretary* : M. Mukherjee

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| | *District* | *Area (sq. km)* | *Population (1971 census)* | *Headquarters* |
|---|---|---|---|---|
| 1. | Ajmer | 8,479 | 11,47,729 | Ajmer |
| 2 | Alwar | 8,382 | 13,91,162 | Alwar |
| 3 | Banswara | 5,037 | 6,54,586 | Banswara |
| 4 | Barmer | 28,387 | 7,74,805 | Barmer |
| 5. | Bharatpur | 8,093 | 14,90,206 | Bharatpur |
| 6. | Bhilwara | 10,450 | 10,54,890 | Bhilwara |
| 7. | Bikaner | 27,231 | 5,73,149 | Bikaner |
| 8 | Bundi | 5,550 | 4,49,021 | Bundi |
| 9. | Chittaurgarh | 10,858 | 9,44,981 | Chittaurgarh |
| 10 | Churu | 16,829 | 8,74,439 | Churu |
| 11. | Dungarpur | 3,770 | 5,30,258 | Dungarpur |
| 12 | Ganganagar | 20,629 | 13,94,011 | Ganganagar |
| 13 | Jaipur | 14,000 | 24,82,385 | Jaipur |
| 14. | Jaisalmer | 38,401 | 1,66,761 | Jaisalmer |
| 15 | Jalor | 10,640 | 6,67,950 | Jalor |
| 16. | Jhalawar | 6,216 | 6,22,001 | Jhalawar |
| 17. | Jhunjhunun | 5,929 | 9,29,230 | Jhunjhunun |
| 18 | Jodhpur | 22,860 | 11,62,712 | Jodhpur |
| 19 | Kota | 12,437 | 11,43,870 | Kota |
| 20 | Nagaur | 17,718 | 12,62,157 | Nagaur |
| 21 | Pali | 12,391 | 9,70 002 | Pali |
| 22. | Sawai Madhopur | 10,593 | 11,93,528 | Sawai Madhopur |
| 23. | Sikar | 7,732 | 10,42,648 | Sikar |
| 24. | Sirohi | 5,135 | 4,23,815 | Sirohi |
| 25 | Tonk | 7,200 | 6,25,830 | Tonk |
| 26 | Udaipur | 17,267 | 18,03,680 | Udaipur |

[1]As on 5-10-1977

## SIKKIM

| | |
|---|---|
| *Area* : 7,299 sq km | *Population*. 2,09,843 |
| *Capital*. Gangtok | *Principal languages*. Bhutia, Nepali Lepcha and English |

AGRICULTURE

The state's economy is principally agrarian. Rice, maize, millet and barley are the main crops Cardamom, potato, citrus, apple and pineapple are the major cash crops

Regional centres carrying out both experimental research works and extension works are functioning at Gyalshing, Hillay, Burmiek, Nazitam, Pakyoung, Mangan, Lachung Mazitar and Namchi. An Agricultural Research Centre has been opened where research on crops pertaining to the hill areas is being done. There is a cardamom nursery at Mangan and fruit nursery at Lagyap and an apple orchard at Lachung

About a third of the area is covered by forests *Sal* abounds in the south while conifers are found in plenty in the north Broad leaf varieties grow abundantly in other parts

Sheep, goats, cattle and yaks are abundant and wool, skins and hides are among the principal raw materials for industries There is an animal husbandry farm at Tadong

INDUSTRY

The Sikkim Mining Corporation, Rangpo, set up in 1960, produces copper, lead and zinc. In 1974-75, the total production was 3,000 tonnes of copper, 500 tonnes of lead and 800 tonnes of zinc An industrial survey was undertaken in Sikkim some years ago. Pyrites, limestone, graphite, tungsten and coal are also mined in the state. The copper mine of Dikchu is under exploration

The Government Institute of Cottage Industries, set up in 1957 at Gangtok, encourages local handicrafts. Wool weaving and carpet weaving are among important traditional industries Important industrial ventures include the fruit preservation factory at Singtam, the distillery near Rangpo and a tannery at Maitar, Sikkim Jewels and Sikkim-Electronics at Gangtok and a wood working centre at Bordang A watch assembly unit in Gangtok is another industrial venture started in collaboration with HMT.

IRRIGATION AND POWER

Sikkim has tremendous water-power potential In 1961, the Rongnek hydel project with a generating capacity of 2 1 mw was completed. Micro-hydel schemes are in progress at Mangan, Rimbi and Rohtak

GOVERNMENT

Sikkim became a full fledged state of the Indian Union with effect from 26 April 1975 On 1 March 1975, it had become an associate state The Legislative Assembly adopted a resolution on 10 April 1975 abolishing the institution of Chogyal and seeking for the territory full statehood in the Indian Union

This resolution was endorsed by the people of Sikkim by an overwhelming majority in a special poll held on 14 April 1975.

The Constitution (Thirty-sixth Amendment) Act, 1975, was passed by Parliament on 26 April 1975 for giving effect to the wishes of the people of Sikkim to become fully integrated with the Indian Union as a constituent state.

*Governor* : B. B. Lal

Council of Ministers[1]

*Chief Minister* : Kazi Lhendup Dorji Khangsarpa
*Ministers* : B. P. Dahal, Rinzing Tongden Lepcha, Dorji Tsering Bhutia, Nayen Tsering Lapcha, B. P. Kharel, K. B. Limboo and R. C. Poudyal.

Legislative Assembly[1]

*Speaker* : B. B. Gurung
*Deputy Speaker* : Kalzang Gyatso

High Court[1]

*Chief Justice* : Manmohan Singh Gujral

*Chief Secretary* : T. S. Gyaltshen

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| *District* | *Population (1971 census)* | *Headquarters* |
|---|---|---|
| 1. East | 85,621 | Gangtok |
| 2 North | 13,014 | Mangab |
| 3. South | 52,423 | Namchi |
| 4. West | 58,785 | Gyalshing |

## TAMIL NADU

*Area* : 1,30,069 sq. km
*Capital* : Madras
*Population* : 4,11,99,168
*Principal language* : Tamil

AGRICULTURE

The total cultivated area is about 66.36 lakh hectares, of which the irrigated area is about 30.33 lakh hectares (46 per cent). The main food crops grown in the state are rice, maize, jowar, bajra, ragi and pulses. Important commercial crops are sugarcane, oilseeds, cotton, tobacco, coffee, tea, rubber and pepper. The estimated production of foodgrains during 1976-77 was 73.90 lakh tonnes and that of sugarcane (in terms of gur) and oilseeds 13.50 and 13.43 lakh tonnes respectively.

Forests cover an area of 20,910 sq. km. The main forest products are timber, sandalwood, softwood, bamboo and eucalyptus.

INDUSTRY

Limestone, magnesite, mica, quartz, felspar, salt, bauxite, lignite and gypsum are some of the minerals found in the state.

The major industries are cotton textiles, chemical fertilizers, paper and paper products, printing and allied industries such as diesel engines and parts, cement, sugar, iron and steel and railway wagons and coaches.

A number of public sector undertakings are located in Tamil Nadu. Important among them are the Neyveli Lignite complex, the Integral Coach Factory, the High Pressure Boiler plant, the Hindustan Photo Films factory, the Surgical Instruments factory, the Hindustan Teleprinters, the Madras Refineries, the Madras Fertilizers as also some defence units including the Heavy Vehicle's factory.

The state is an important exporter of tanned hides and skins, leather goods, cotton piecegoods and yarn, tea, coffee, spices, engineering goods and tobacco.

IRRIGATION AND POWER

Important irrigation schemes implemented since Independence are the Bhavani, the Amravati, the Vaigai, the Parambikulam-Aliyar, the

[1]As on 15-10-1977

Krishnagiri, the Sattanur, the Pullambadi-Kattalai high level canal, the Gomukhi Nadhi, Chittor Pattanamkal and the Ponnaniar schemes.

There are 17 hydro-electric stations and 2 thermal stations in the state The total installed capacity of power, hydel and thermal, exceeds 2,364 mw. Construction of an atomic power station at Kalpakkam in Chingleput district is in progress. Tamil Nadu has 63,289 electrified towns, villages and hamlets including 24,454 Harijan colonies. For irrigation, 7,93,132 pumpsets were energised as on 1 September 1977.

**GOVERNMENT** *Governor* · Prabhudas Patwari

**Council of Ministers**[1]

*Chief Minister* : M. G. Ramachandran

*Cabinet Ministers* : K. Manoharan, S Ramachandran, K Narayanaswamy Mudaliar, G. R. Edmund, R. M. Veerappan, C. Aranganayagam, K Kalimuthu, S. Raghavanandam, P. Soundra Pandiyan, C. Ponnaiyan, Km. P. T. Saraswathi, Thiru P. Kulandaivelu and K. Raja Mohammed.

**Legislative Assembly**[1]

*Speaker* · Manu Adi

*Deputy Speaker* : S Thirunavukkarasu

**Legislative Council**[1]

*Acting Chairman* : M. P. Sivagnanam

**High Court**[1]

*Chief Justice* · P Govindan Nair

*Judges* · T. Ramaprasada Rao, M. M. Ismail, P. R. Gokulakrishnan, Gopalaswami Ramanujam, V. Ramaswamy, N. S. Ramaswami, C. J. R. Paul, S Natarajan, A. Varadarajan, V. Sethuraman, S. R. Pandian and S Mohan

*Additional Judge* : S. Suryamurthy and V. Balasubramanyan.

**Public Service Commission**[1]

*Chairman* · J. A Ambasankar

*Members* : K. Panurangam, A Palaniswamy, P. Sankaran, S. Srinivasan and S M Sulaiman

*Chief Secretary* : V. Karthikeyan

**AREA, POPULATION AND HEADQUARTERS OF DISTRICTS**

| | *District* | *Area (sq km)* | *Population (1971 census)* | *Headquarters* |
|---|---|---|---|---|
| 1 | Chingleput | 7,920 | 29,07,599 | Kancheepram |
| 2 | Coimbatore | 15,673 | 43,73,178 | Coimbatore |
| 3 | Dharmapuri | 9,643 | 16,77,775 | Dharmapuri |
| 4 | Kanyakumari | 1,684 | 12,22,549 | Nagercoil |
| 5 | Madras | 128 | 24,69,449 | Madras |
| 6. | Madurai | 12,629 | 39,38,197 | Madurai |
| 7 | Nilgiri | 2,549 | 4,94,015 | Ootcamund |
| 8 | North Arcot | 12,265 | 37,55,797 | Vellore |
| 9. | Ramanathapuram | 12,578 | 28,60,207 | Madura |
| 10. | Salem | 8,643 | 29,92,616 | Salem |
| 11. | South Arcot | 10,898 | 36,17,723 | Cuddalore |
| 12 | Pudukkottai | 4,137 | 9,47,351 | Pudukkottai |
| 13. | Tiruchirapalli | 11,208 1 | 31,10,426 | Tiruchirapalli |
| 14 | Thanjavur | 8,680 9 | 36,31,771 | Thanjavur |
| 15 | Tirunelveli | 11,433 | 32,00,515 | Tirunelveli |

[1]As on 17-10-1977

# TRIPURA

| | |
|---|---|
| *Area* . 10,477 sq. km | *Population* : 15,56,342 |
| *Capital* : Agartala | *Principal languages* . Bengali, Tripuri and Manipuri |

AGRICULTURE

About 60 per cent of the area is under forests. Irrigated area is eight per cent of the cultivated area. Rice, jute, *mesta,* potatoes, oilseeds, sugarcane and cotton are the main crops. Production of rice in 1975-76 was estimated at 3.58 lakh tonnes.

INDUSTRY

Tea is the major industry in Tripura Tea plantations cover an area of about 5,526 hectares and the annual production of processed tea is about 29 58 lakh kg Important cottage industries are handloom, handicrafts and khadi.

Some major industries are proposed to be set up in the state. They include a paper mill and a jute mill Establishment of the jute mill has made substantial progress.

IRRIGATION AND POWER

A number of schemes of lift irrigation and installation of tube-wells were taken up in the Fourth Plan Sixty-seven schemes have so far been completed and twenty-nine schemes are at various stages of execution Irrigation potential at the end of 1975-76 was 3,300 hectares Nine hundred hectares of land will be brought under cultivation

The total installed power capacity of the state is 15 mw. One hundred and seventy villages had been electrified and 99 pumpsets energised by March 1976

GOVERNMENT

*Governor* . L P. Singh

Council of Ministers[1]

*Chief Minister* N Chakravorty
*Ministers* · Dasarath Deb, Biren Dutta, Dinesh Deb Burman, Vaidyanath Mazumdar, Baguban Riyan, Arever Rahman. Jogesh Chakravarti, Praja Gopal Rai and Anil Sarkar.

Legislative Assembly[1]

*Speaker* · Manindra Lal Bhowmik
*Deputy Speaker* : Usha Ranjan Sen

High Court[2]

The Jurisdiction of Gauhati High Court extends over Tripura

Public Service Commission[2]

*Chairman* S K Ghosh
*Member* L N K Dey

*Chief Secretary* · T. S Murty

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS[3]

| | *District* | *Area (sq km)* | *Population (1971 census)* | *Headquarters* |
|---|---|---|---|---|
| 1 | North Tripura | 3,541 | 4,05,009 | Kailashahar |
| 2 | South Tripura | 3,577 | 3,99,728 | Udaipur |
| 3 | West Tripura | 3,359 | 7,51,605 | Agartala |

[1]As on 23-1-1978
[2]As on 4-10-1977
[3]As reorganised on 21 January 1972 according to North Eastern Areas (Reorganisation) Act, 1971

## UTTAR PRADESH

| | |
|---|---|
| *Area* : 2,94,413 sq. km | *Population* . 8,83,41,144 |
| *Capital* . Lucknow | *Principal language* : Hindi |

AGRICULTURE

The principal food crops are wheat, rice, gram, barley, maize and bajra. Cotton, linseed, groundnut, sugarcane, tea, sesamum, rapeseed, mustard and tobacco are the important cash crops. Jute is also cultivated in some areas It is the main opium growing state in India.

Production of foodgrains in 1975-76 was 194.56 lakh tonnes; sugar (gur) 58.36 lakh tonnes and oilseeds 18.55 lakh tonnes.

Forests cover 17 23 per cent of the area of the state.

INDUSTRY

Uttar Pradesh is one of the principal sugar producing states. While the handloom industry is the largest cottage industry, cotton and woollen textiles, leather and footwear, distilleries and breweries, paper and chemicals, agricultural implements and glass and glass products are some of the other flourishing industries.

A number of big public sector undertakings have been set up in the state. These are : the Bharat Heavy Electricals at Hardwar, the Indian Drugs and Pharmaceuticals at Rishikesh, the Diesel Locomotive factory at Varanasi, fertilizer factory at Gorakhpur, Singrauli coal fields, Singrauli; Modern Bakery, Kanpur, Bharat Pumps & Compressors, Naini, Indian Telephone Industries, Naini, the Triveni Structurals at Naini, the deep freeze meat plant at Tundla, the Hindustan Aeronautics at Lucknow, Transformer Factory, Jhansi and two cement factories at Churk and Dalla. There are also the Bharat Electronics Ltd., Ghaziabad; Scooters India Ltd , Lucknow and Tannery and Footwear Corporation of India Ltd , Kanpur The Artificial Limbs Manufacturing Corporation of India Ltd , Kanpur, Oil Refinery, Mathura, Foundry Forge, Hardwar, and Telephone Factory, Rai Bareli are among the Central projects being set up in Uttar Pradesh

The traditional handicrafts are silk fabrics, metal-ware, woodwork, ceramics, stone work, dolls, artistic leather articles, ivory articles, papier mache, perfumery, bamboo products and musical instruments

IRRIGATION AND POWER

The state has some of the oldest canal systems in the country among which are the eastern Yamuna canal, the upper and lower Ganga canal, Agra canal, Betwa canal, Sarda canal, Dhassan canal and Ken canal. Important irrigation projects implemented since 1947 are Matatilla Dam, Ramganga, western Gandak canal and Sarda Sagar, besides a number of small and medium irrigation projects The first stage of the Rs 200-crore Sarda Sahayak irrigation project has been completed providing irrigation to 1.27 lakh hectares On completion, this project will irrigate 15 lakh hectares in central and eastern districts of the state lying in Ganga-Ghagra doab

The total installed capacity of power, both hydel and thermal, was 2,675 mw in August 1977 An atomic power station is being set up at Narora in Bulandshahr district The state had only 110 electrified villages in 1951; the number increased to 33,193 in June 1977 and 9,115 Harijan Bastis have also been electrified For irrigation, 2,55,000 pumpsets/tube-wells had been energised compared to only 3,000 tube-wells in 1951

GOVERNMENT *Governor* : G. D. Tapase

Council of Ministers[1]

*Chief Minister* : Ram Naresh Yadav

*Cabinet Ministers* : Ram Prakash, Ravindra Kishore Shahi, Balbir Singh, Satya Prakash Malviya, Rajendra Singh, Madhukar Dighe, Jamuna Prasad Bose, Harish Chandra Srivastva, Ganesh Dutt Bajpai, Smt. Chandrawati, Mulayam Singh Yadav, Ram Singh, Kali Charan, Keshri Nath Tripathi, Sarda Bhakt Singh, Abid Ali Ansari, Kalyan Singh, Mohmmad Masood Khan, Om Prakash, Shrichandra, Shoban Singh Jina.

*Ministers of State* : Laxman Singh, Avadhesh Prasad, Dhirendra Sahai, Subedar Prasad, Smt. Shakuntala Nayar and Rewati Raman Singh.

Legislative Council[1]

*Chairman* : Dr Virendra Swarup

*Dy. Chairman* : Devendra Pratap Singh

Legislative Assembly[1]

*Speaker* : Banarsi Das

High Court[1]

*Chief Justice* : D M. Chandrashekhar

*Judges* : Satish Chandra, Yashoda Nandan, Ram Briksha Misra, Hari Swarup, M. N. Shukla, H. N. Seth, Mohd. Hamid Husain, S. B. Malik, Jagmohan Lal Sinha, Kamal Narain Singh, C. S P. Singh, Gopi Nath, T. S Misra, N. D. Ojha, Kamtanath Seth, P. N. Bakshi, H. N. Kapoor, Prem Prakash, S K. Kaul, M P. Mehrotra, D. N. Jha, Amitav Banerji, B. N. Katju, K. C. Agarwal, G. D. Srivastava, J. P. Chaturvedi, M. P. Saxena, V. N. Verma, Mohd. Mirza Murtaza Husain, K. S. Varma, B N Sapru, and R M. Sahai.

Public Service Commission[1]

*Chairman* : Dr. Bishamber Singh

*Members* : Muhammad Safiqul Haq, S. N. Shukla, Dr. B. L. Verma, Chunni Lal, Ram Hita and Pooran Chand Pandey.

*Chief Secretary* : Kripa Narain

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| *District* | *Area (sq km)* | *Population (1971 census)* | *Headquarters* |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| 1. Agra | 4,816 | 23,08,638 | Agra |
| 2 Aligarh | 5,024 | 21,11,829 | Aligarh |
| 3 Allahabad | 7,255 | 29,37,278 | Allahabad |
| 4 Almora | 7,023 | 7,50,038 | Almora |
| 5. Azamgarh | 5,744 | 28,57,484 | Azamgarh |
| 6 Bahraich | 6,871 | 17,26,972 | Bahraich |
| 7. Ballia | 3,183 | 15,88,935 | Ballia |
| 8 Banda | 7,645 | 11,82,215 | Banda |
| 9 Bara Banki | 4,422 | 16,35,593 | Bara Banki |
| 10 Bareilly | 4,125 | 17,79,867 | Bareilly |
| 11. Basti | 7,309 | 29,84,090 | Basti |
| 12. Bijnor | 4,852 | 14,90,185 | Bijnor |
| 13 Badaun | 5,158 | 16,45,967 | Budaun |
| 14 Bulandshahr | 4,895 | 20,73,343 | Bulandshahr |
| 15. Chamoli | 9,125 | 2,92,571 | Chamoli |
| 16 Dehra Dun | 3,088 | 5,77,306 | Dehra Dun |
| 17. Deoria | 5,400 | 28,12,350 | Deoria |
| 18. Etah | 4,449 | 15,70,925 | Etah |
| 19 Etawah | 4,327 | 14,47,702 | Etawah |
| 20 Faizabad | 4,427 | 19,27,281 | Faizabad |

[1]As on 17-10-1977

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| 21. Farrukhabad | 4,349 | 15,56,930 | Fatehgarh |
| 22 Fatehpur | 4,168 | 12,78,254 | Fatehpur |
| 23. Garhwal | 5,440 | 5,53,028 | Pauri |
| 24. Ghazipur | 3,381 | 15,31,654 | Ghazipur |
| 25. Gonda | 7,331 | 23,02,029 | Gonda |
| 26. Gorakhpur | 6,316 | 30,38,177 | Gorakhpur |
| 27. Hamirpur | 7,192 | 9,88,215 | Hamirpur |
| 28. Hardoi | 6,012 | 18,49,519 | Hardoi |
| 29. Galaun | 4,549 | 8,13,490 | Orai |
| 30 Jaunpur | 4,040 | 20,05,434 | Jaunpur |
| 31. Jhansi | 10,069 | 13,07,058 | Jhansi |
| 32. Lalitpur | 10,069 | 13,07,058 | Lalitpur |
| 33 Kanpur | 6,121 | 29,96232 | Kanpur |
| 34. Kheri | 7,691 | 14,86,590 | Lakhimpur |
| 35. Lucknow | 2,528 | 16,17,846 | Lucknow |
| 36 Mainpuri | 4,254 | 14,45,534 | Mainpuri |
| 37 Mathura | 3,797 | 12,90,307 | Mathura |
| 38 Meerut | 5,944 | 33,66,953 | Meerut |
| 39. Mirzapur | 11,301 | 15,41,088 | Mirzapur |
| 40 Moradabad | 5,946 | 24,28,971 | Moradabad |
| 41. Muzaffarnagar | 4,245 | 18,02,289 | Muzaffarnagar |
| 42. NainiTal | 6,792 | 7,90,080 | Naini Tal |
| 43. Pilibhit | 3,504 | 7,52,114 | Pilibhit |
| 44. Pithoragarh | 7,217 | 3,13,747 | Pithoragarh |
| 45. Pratapgarh | 3,730 | 14,22,707 | Bela |
| 46 Rae Bareli | 4,603 | 15,10,812 | Rae Bareli |
| 47 Rampur | 2,372 | 9.01,209 | Rampur |
| 48 Saharanpur | 5,526 | 20,54,834 | Saharanpur |
| 49. Shahajahanpur | 4,581 | 12,86,104 | Shahajahanpur |
| 50. Sitapur | 5,738 | 18,84,400 | Sitapur |
| 51. Sultanpur | 4,424 | 16,42,928 | Sultanpur |
| 52 Tehri-Garhwal | 4,421 | 3,97,385 | Narendra Nagar |
| 53. Unnao | 4,586 | 14,84,393 | Unnao |
| 54. Uttarkashi | 8,016 | 1,47,805 | Uttarkashi |
| 55 Varanasi | 5,091 | 28,52,459 | Varanasi |

## WEST BENGAL

*Area* : 87,853 sq. km   *Population* : 4,43,12,011
*Capital* : Calcutta   *Principal language* : Bengali

AGRICULTURE

About 57.5 per cent of the total population of West Bengal is engaged in agricultural pursuits Irrigated area forms about 28 per cent of the cultivated area which is about 63 per cent of the total area. The state occupies a leading position among the rice producing states in the country The area under paddy is nearly 73 per cent of the total cultivated area. Other important food crops are wheat, maize, barley, pulses and potatoes. Among the cash crops, the most important are jute, tea and pan leaf, while oilseeds, tobacco and sugarcane are also produced. During 1976-77, 10.50 lakh tonnes of wheat were produced against 11.87 lakh tonnes during 1975-76 The production of jute was 34.73 lakh bales as compared to 26.86 lakh bales during 1975-76. The state earns considerable foreign exchange through export of jute and tea.

Temperate fruits have been successfuly grown in the Darjeeling hills. This is expected to help the economic development of this region.

Forests cover about 13.4 per cent of the area of the state. Major

forest products are timber, honey, firewood, charcoal, *katha* and bamboo

INDUSTRY

Coal and fire-clay are the two most important minerals found in West Bengal Other minerals are china clay, limestone, copper, iron, silica, manganese, sandstone and moulding sand.

West Bengal is a major industrial state in the country. There is one steel plant and one alloy plant at Duragapur and another steel plant at Burnpur The other major industries are jute, tea, cotton textiles, silk, automobile, bicycle, light engineering, paper, pharmaceuticals, chemical, aluminium, sugar, timber processing, ceramic and glass, leather and footwear, bone-meal and dairying A number of central public sector undertakings including locomotive, cable, fertilizer, ship-building and ordnance are also located in the state New industrial areas are being developed at Asansol, Durgapur, Haldia, Kalyani, Kharagpur, Santaldih and Siliguri New industrial ventures include cement, scooter, electricals, mini-steel plants, chemicals, etc.

IRRIGATION AND POWER

Important multi-purpose irrigation and power schemes implemented since 1947 are the Damodar Valley project and the Mayurakshi project. The other major irrigation project is the Kansabati project.

Of the major power projects, the Bandel thermal power station has a capacity of 320 mw and the Santaldih thermal station has a capacity of 240 mw. Durgapur Project Ltd has 270 mw capacity The Calcutta Electric Supply Corporation has four stations with an installed capacity of 328 mw In addition, the Damodar Valley Corporation also supplies power (390 mw) to West Bengal from its generating stations The total installed capacity exceeds 1,300 mw

West Bengal had only 386 electrified villages in 1951 : the number increased to 11,241 by 31 July 1977 More than 15,000 irrigation pumps have been energised

GOVERNMENT

*Governor* A L. Dias

Council of Ministers[1]

*Chief Minister* : Jyoti Basu

*Cabinet Ministers* : Benoy Krishna Choudhury, Md Amin, Sudhin Kumar, Dr. Ashoke Mitra, Kamal Guha, Dr Kanai Bhattacharjee, Krishna Pada Ghosh, Partha Dey, Hasim Abdul Halim, Bhakti Bhusan Mandal, Jatin Chakraborty, Amritendu Mukherjee, Nani Bhattacharya, Debabrata Bandyopadhya, Pravash Roy, Parimal Mitra, Prof. Sambhu Ghosh, Prasanta Sur, Radhika Banerjee, Chittabrata Mazumdar, Buddha Deb Bhattacharjee and Bhabani Mukherjee.

*Ministers of State* : Smt Nirupama Chatterjee, Sambhunath Nandi, Sibendra Narayan Choudhury, Md Abdul Bari, Kanti Biswas and Ram Chatterjee.

Legislative Assembly[1]

*Speaker* Saiyad Abul Mansur Habibullah

*Dy. Speaker* Kalimuddin Shams

High Court[1]

*Chief Justice* . Sankar Prasad Mitra

*Judges* : Amrendra Nath Sen, Sambhu Chandra Ghose, Ramendra Mohan Dutta, Samarendra Chandra Deb, Sabyasachi Mukherji, Tarun Kumar Basu, Salil Kumar Dutta, Prodyot Kumar Banerjee, Ajay Kumar Basu, Anil Kumar Sen, Chittatosh Mookerji, Amiya

[1]As on 14-10-1977

Kumar Mookerji, Murari Mohan Dutt, Purna Chandra Borooah, Salil K. Roy Chowdury, Rabindranath Bhattacharya, Salil Kumar Hazra, Arun Kumar Janah, Nirmal Chandra Mukherji, Amar Nath Banerjee, Sudhamay Basu, Ajit Kumar Sarkar, Dipak Kumar Sen, Ambika Pada Bhattacharya, Rabindra Nath Pyne. Bankim Chandra Ray, Manashnath Roy, Bimal Chandra Basak, Ramkrishna Sharma, Ganendra Narayan Roy, Dhires Chandra Chakravorti, Chandra Kumar Banerjee. Monoj Kumar Mukherjee, Smt Padma Khastger and Smt. Manjula Bose

Public Service Commission[1]

*Chairman* · Sukumar Mullick
*Members* . Amiya Kumar Majumdar, H. K. Chakraborty, Rabidas Baul, Dr. Kalyani Pramanik and Masood Hasan.

*Chief Secretary* . A. K. Sen

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS[2]

| | *District* | *Area* (sq km) | *Population* (*1971 census*) | *Headquarters* |
|---|---|---|---|---|
| 1 | Bankura | 6,881 | 20,31,039 | Bankura |
| 2. | Birbhum | 4,550 | 17,75,909 | Suri |
| 3. | Burdwan | 7,028 | 39,16,174 | Burdwan |
| 4 | Calcutta | 104 | 31,48,746 | Calcutta |
| 5 | Cooch Behar | 3,386 | 14,14,183 | Cooch Behar |
| 6 | Darjeeling | 3,075 | 7,81,777 | Darjeeling |
| 7 | Hooghly | 3,145 | 28,72,116 | Chinsurah |
| 8. | Howrah | 1,474 | 24,17,286 | Howrah |
| 9 | Jalpaiguri | 6,245 | 17,50,159 | Jalpaiguri |
| 10 | Malda | 3,713 | 16,12,657 | English Bazar |
| 11. | Midnapore | 13,724 | 55,09,247 | Midnapore |
| 12 | Murshidabad | 5,341 | 29,40,204 | Baharampur |
| 13. | Nadia | 3,296 | 22,30,270 | Krishnanagar |
| 14 | Purulia | 6,259 | 16,02,875 | Purulia |
| 15. | Twenty Four Parganas | 13,796 | 84,49,482 | Alipur |
| 16 | West Dinajpur | 5,206 | 18,59,887 | Balurghat |

## ANDAMAN AND NICOBAR ISLANDS

*Area* : 8,293 sq km *Population* : 1,15,133
*Capital* Port Blair

AGRICULTURE

About 18.46 per cent of the total working population of 300 and odd island forming the union territory is engaged in agricultural pursuits. Irrigated area is negligible. The tropical climate and fertile soil are well suited to the growth of rice, rubber, coffee, coconut, arecanut, cashew nut, fruits and spices. Among fruits lemon, mango guava,

[1]As on 14-10-1977.

[2]As re-organised on 21 January 1972 according to North Eastern Areas (Re-organisation) Act, 1971.

orange, custard apple, pineapple and banana are extensively grown. The production of rice increased from 11,660 tonnes in 1973-74 to over 13,200 tonnes in 1974-75.

Forests occupy an area of 7,464 sq. km. Important forest products are various types of timber, bamboo and pandanus.

INDUSTRY

Timber furniture making and shell products are the major industries. Plywood, match-splint and oil milling are the other industries. Mat making from pandanus leaves is an important cottage industry. Other cottage industries include leather goods, handicrafts, handlooms and coir making.

Small-scale units manufacturing aluminium products, soap, candles and stainless steel products have come up during recent years.

IRRIGATION AND POWER

Irrigation facilities in the territory are negligible. The total installed capacity of power by 31 March 1975 was 3.95 mw. Of 390 villages in the islands, 52 villages excluding the municipal area of Port Blair had been electrified by 31 March 1975 as compared to nil in 1951.

GOVERNMENT

*Chief Commissioner* : S. M. Krishnatry

High Court

The jurisdiction of Calcutta High Court extends over Andaman and Nicobar Islands For list of judges see under West Bengal.

Public Service Commission

Recruitment is made through the Union Public Service Commission.

*Chief Secretary* : D. C. Misra

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| | *District* | *Area (sq km)* | *Population (1971 census)* | *Headquarters* |
|---|---|---|---|---|
| 1. | Andaman | 6,340 | 93,468 | Port Blair |
| 2. | Nicobar | 1,953 | 21,665 | Car Nicobar |

## ARUNACHAL PRADESH

*Area* : 83,578 sq km *Population* : 4,67,511
*Capital* : Itanagar

AGRICULTURE

Nearly 46 per cent of the population of Arunachal Pradesh is engaged in agriculture. Irrigated area forms 17 per cent of the total cultivated area or about 14,000 hectares. The traditional method of agriculture is *jhuming,* a kind of shifting cultivation. The forests are cleared and crops are raised for one to three years, depending on the fertility of the soil. Thereafter, the cultivators move on elsewhere. However, sedentary cultivation is followed in the valleys and terraces, the methods being called 'wet rice cultivation' and 'terrace rice cultivation' respectively. Main crops are rice, maize, millets, wheat and mustard. Forests cover 61,000 sq. km of the area.

INDUSTRY

Principal industries are forest-based. Medium and small industries established include saw mills, plywood and veneering mills, rice mills,

fruit preservation units, oil expellers besides handloom and handicrafts industries.

IRRIGATION AND POWER

A hydel project with an installed capacity of 750 kw was commissioned at Ragung in 1972. Two more hydel projects at Pasighat and Basar with installed capacities of 200 kw and 100 mw respectively were completed in November 1973. During 1976 and 1977, Along (400 kw), Tezu (500 kw) and Tawang (1,500 kw) were commissioned Ziro, Kalakatang and Taksing hydro-electric projects are already ready for commissioning The work on Dirang (1,500 kw) micro-hydel project is ready for commissioning. Another Tirat-jo micro-hydel project near Khonsa was inaugurated in May 1977. The total installed capacity in March 1975 was 3.4 mw. Arunachal Pradesh had only seven electrified villages in 1961 and the number increased to 61 by 31 March 1975.

GOVERNMENT

*Lt Governor*: K. A A Raja

Council of Ministers[1]

*Chief Minister*: P. K Thungon
*Ministers*: Tadar Tang, Sobeng Tayang, Gegong Apang and Nokmay Nemati.

Legislative Assembly[1]

*Speaker*: Nokmey Nemati
*Deputy Speaker*: Padi Yubbe

High Court[1]

The Jurisdiction of Gauhati High Court extends over Arunachal Pradesh For list of judges, see under Assam.

Public Service Commission

Recruitment is made through special Selection Board constituted by the Union Ministry of Home Affairs in respect of Class I posts.

*Chief Secretary*: I. P. Gupta

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| | *District* | *Area (sq km)* | *Population (1971 census)* | *Headquarters* |
|---|---|---|---|---|
| 1. | Kameng | 13,724 | 86,001 | Bomdila |
| 2 | Lohit | 24,427 | 62,865 | Tezu |
| 3 | Siang | 23,723 | 1,21,936 | Along |
| 4 | Subansiri | 14,797 | 99,239 | Ziro |
| 5. | Tirap | 6,907 | 97,470 | Khomsa |

## CHANDIGARH

*Area*: 114 sq. km *Population*: 2,57,251
*Capital*: Chandigarh

AGRICULTURE

Irrigated area covered 46.33 per cent of the total cultivated area during 1976-77. Rice, wheat, maize and potato are the principal food crops grown. The production of foodgrains in 1976-77 was 7,940 tonnes

[1]As on 14-3-1978

compared 7,850 tonnes in 1975-76. Forests cover 27.5 per cent of the area.

INDUSTRY

There are 13 industries in the large and medium sector and 521 units in the small industries sector. The major industries are wool tops and yarn, hosiery needles, electric meters, antibiotics and medicines, bicycle rims, chains and free wheels, card-board and steel furniture. The cottage and small-scale industries include iron and steel re-rolling, steel fabrication, sanitary fittings, door fittings. electronic components, cutlery, machine screws, hardware, electrical appliances, plastic shoes, cotton ginning, machine parts, utensils, paints and varnishes, tiles, conduit pipes and rivets, miniature bulbs, insecticides and pesticides, auto cables and domestic cables, thermometers, wire drawing and wire products, soaps and chemicals and cement pipes, tape recorders, calculators, record players, handloom weaving, shoe making and detergent powders An electronics industry complex is being developed and a bakery plant is being put up.

IRRIGATION AND POWER

The total installed power capacity on 30 September 1977 was 51 mw compared to 15 mw in May 1967. All the 26 villages had been electrified. There were 14 electrified villages in 1967. The number of pumpsets/tubewells energised for irrigation was 485 on 30 September 1977.

GOVERNMENT

*Chief Commissioner* . T N Chaturvedi

High Court

The jurisdiction of the High Court of Punjab and Haryana extends over Chandigarh. For list of judge, see under Haryana

Public Service Commission

Recruitment is made through the Union Public Service Commission

## DADRA AND NAGAR HAVELI

*Area* : 471 sq. km *Population* . 74,170

*Capital* : Silvassa

AGRICULTURE

Agriculture is the main occupation of the *Adivasis* who comprise 87 per cent of the total population Rice and ragi are the major food crops, while wheat is also grown in some areas. Main cash crops are oilseeds and sugarcane. About 18,000 hectares of land is under cultivation Agriculture is dependent on rainfall

A bull rearing centre and a poultry farm were set up in 1974-75. More than 40 small poultry units belonging entirely to the *Adivasis* have also been started A gobar gas plant was set up in Dadra and Nagar Haveli. A veterinary dispensary and a government poultry farm are already functioning.

Forests occupy 41 5 per cent of the area Main forest products are timber, khair, sadad, shisham and shivan

INDUSTRY

There are no major industries. A beginning has, however, been made in this direction by establishing an industrial estate at Pipparia near

Silvassa. At present, there are 65 small scale industries in the Union Territory The main items manufactured by the units are automobile parts, pesticides, opticals, engineering goods, textile, weaving and printing, detergents, chemicals, confectionary and drugs

**IRRIGATION AND POWER** There is no major or medium irrigation scheme. However, the union territory is participating with the Government of Gujarat and Goa, Daman and Diu in the Daman-ganga reservoir project Minor irrigation schemes at Khanv and Bindrabin have been completed. The irrigation scheme at Tigra has been expanded to cover more area. The total area under irrigation was 375 hectares by September 1977.

Power is obtained from Gujarat Out of 72 villages, 44 had been electrified by August 1977. The number of pumpsets/tubewells energised was 175 by August 1977.

**GOVERNMENT** *Administrator* : S. K. Banerji

**High Court** The jurisdiction of Bombay High Court extends over this union territory For list of judges, see under Maharashtra

**Public Service Commission** Recruitment is made through the Union Public Service Commission.

## DELHI

*Area* · 1,485 sq. km *Population* . 40.65,678
*Capital* : Delhi

**AGRICULTURE** Wheat, gram, rice, maize, bajra and jowar are the principal food crops Small quantities of cash crops, such as sugarcane, mustard, tobacco and chillies are also grown Mixed cropping including cultivation of vegetables and poultry keeping are becoming popular. The production of foodgrains in 1975-76 was 1.20 lakh tonnes as against 1 21 lakh tonnes in the previous year The total cropped area during 1975-76 was 1,19,520 hectares

**INDUSTRY** There were about 38,000 industrial units employing 2,96,000 persons in Delhi in 1976 The total investment in these units was Rs 295 crores and the value of total production was Rs 428 crores. Prominent industries are steel castings, drugs and chemicals, paints and varnishes, television sets, radios, transistors. electrical goods, machine tools, automobile accessories, domestic electric appliances, scientific instruments, ready-made garments and vegetable oils Other industries include leather and rubber goods, pottery, textiles and tanning The well-known cottage industries of Delhi are ivory works, gold and silver embroidery, jewellery, brass and copperware

**IRRIGATION AND POWER** There is no major irrigation project in Delhi Only minor works and tube-wells help in irrigation. The Delhi Electric Supply Undertaking, responsible for generation and distribution, had a derated capacity of 2,73,000 kw during 1975-76 Delhi has electrified all the villages as against only 24 in 1957. For irrigation, 33,122 tube-wells had been energised by 1975-76, while the number was nil in 1951

GOVERNMENT *Lt. Governor* : Dalip Rai Kohli

Executive Council[1] *Chief Executive Councillor* : Kidar Nath Sahani
*Executive Councillors* : Madan Lal Khurana, Rajesh Sharma and Prem Sukh.

Metropolitan Council[1] *Chairman* : Kalka Das
*Dy. Chairman* : Begum Khurshid Kidwai

High Court[1] *Chief Justice* : T. V R Tatachari
*Judges* : V. S. Deshpande, S Rangarajan, Prakash Narain, P. S. Saffeer, V. D. Misra, Rajinder Sachar, Prithvi Raj, Dalip K. Kapur, T. P. S. Chawla, Avadh Behari Rohatgi, R. N. Aggarwal, H. L. Anand, Yogeshwar Dayal, Fauja Singh Gill, M. S. Joshi and S. S. Chadha.

Public Service Commission Recruitment is made through the Union Public Service Commission.

*Chief Secretary* : B. N. Tandon

## GOA, DAMAN AND DIU

*Area* : 3,813 sq. km *Population* : 8,57,771

*Capital* : Panaji *Principal languages* : Marathi, Konkani and Gujarati

AGRICULTURE Irrigated area forms about 9 5 per cent of the total cultivated area. Rice is the main important food crop. Pulses and ragi and other food crops are grown. Production of rice in 1976-77 was 89,383 tonnes. Other crops grown in small quantities include groundnut, maize, jowar and bajra. The main cash crops are sugarcane, coconut, cashewnut, arecanut and fruits like pineapple, mango and banana.

Forests cover 27.6 per cent of the total area.

INDUSTRY The mineral wealth consists of iron ore, manganese, ferro-manganese, bauxite and silica sand. The mining industry contributes substantially to the economy of the territory employing over 25,000 persons The estimated production of these minerals during 1976-77 was 131.8 lakh tonnes. The foreign exchange earning resulting from the export of ores was over Rs 87 crores during 1976-77.

On 31 March 1977, the number of small-scale industries registered was 1,500. They included workshops, bakeries, printing presses, saw mills, tyre retreading units, fruit and fish canning, cashew processing, mosaic tiles, soap manufacture, furniture making and also manufacture of typewriter ribbons, carbon paper, automobile batteries, acrylic sheets, polythene bags, sodium silicate, fishing nets, zip fasteners, stoves and footwear, spectacle frames, chemical industries bifocal lenses and stainless steelwares.

There are three government industrial estates already functioning while two more have been constructed.

[1] As on 15-10-1977

There are 23 large and medium scale industries. They include a flour mill, a textile mill, a steel rolling mill, brewery plants and a pelletisation plant. A fertilizer project involving an investment of about Rs 58 crores has gone into production.

IRRIGATION AND POWER

Nineteen lift irrigation schemes capable of irrigating about 560 hectares had been implemented till March 1975. Besides, 45 tanks have been renovated and they irrigate about 400 hectares. Eighty-five open type bandharas have also been constructed to irrigate another 1,170 hectares of land.

The number of electrified villages was 340 in 1977 (31 March) as compared to nil in 1961.

GOVERNMENT *Lt. Governor* : S. K. Banerji

Council of Ministers[1]

*Chief Minister* : Smt. Shashikala Kakodkar
*Cabinet Minister* : V. D. Chodankar and S. V. Laad.
*Minister of State* : Raul H. Fernandes

Legislative Assembly[1]

*Speaker* : N. S. Fugro
*Dy. Speaker* : M. M. Bhatela

High Court[1]

The Judicial Commissioner's Court has been declared as a High Court for the purpose of articles 132, 133 and 134 of the Constitution.

*Judicial Commissioner* : Tito Menezes
*Addl. Judicial Commissioner* : K. N. Mishra

Public Service Commission

Recruitment is made through the UPSC.

*Chief Secretary* : W. Shaiza (acting)

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| | *District* | *Area (sq km)* | *Population (1971 census)* | *Headquarters* |
|---|---|---|---|---|
| 1. | Daman | 72 | 38,739 | Daman |
| 2. | Diu | 40 | 23,912 | Diu |
| 3 | Goa | 3,701 | 7,95,120 | Panaji |

## LAKSHADWEEP

*Area* : 32 sq. km *Population* : 31,810
*Capital* : Kavaratti

AGRICULTURE

Coconut is the only major crop with a turnover of over Rs 1.01 crores a year. The area under coconut cultivation was 2,776 hectares in 1975-76. There are dairies at Kavaratti and Minicoy and poultry farms at Androth, Kadmat, Kalpeni and Minicoy.

[1]As on 8-11-1977

INDUSTRY

Fishing is the main industry. The sea around the islands is highly productive. It is particularly rich in tuna and shark varieties of fish. Over 128 mechanised fishing boats are engaged in fishery operations. There is a factory for canning tuna fish at Minicoy Island. There are boat-building yards at Kavaratti and Chetlat.

Coir spinning and coir yarn production are the main cottage industries with an annual turnover of Rs 6 to 7 lakhs. Coir products are exchanged for foodgrains and other consumer goods through government depots A coir production centre functions at Kadamat and a curled fibre factory at Androth There is a hosiery unit at Kalpeni. A handicrafts society was started in 1974.

POWER

Out of ten inhabited islands, nine had been electrified by 1973-74. The installed capacity of generator sets in Lakshadweep on 31 March 1975 was 846 6 kw.

*Administration* · S D Lahkar

High Court

The jurisdiction of the Kerala High Court extends over Lakshadweep. For list of judges, see under Kerala.

Public Service Commission

Recruitment is made through the Union Public Service Commission.

## MIZORAM

---

*Area* : 21,087 sq. km *Population* : 3,32,370

*Capital* : Aizawl *Principal languages* · Lushai and English

---

AGRICULTURE

About 87 per cent of the people of Mizoram are engaged in agricultural pursuits. Irrigated area forms seven per cent of the total cultivated area. In the hill slopes, maize and paddy are cultivated. Other crops grown are pulses, sugarcane, chillies, ginger, tobacco, vegetables, turmeric, potato, banana and pineapple. Shift cultivation is ordinarily practised though terrace rice cultivation and wet rice cultivation practices have been taken up in recent years Production of foodgrains in 1976-77 was about 58,245 tonnes, ginger 20,360 tonnes; sugarcane 2,048 tonnes and potato 382 tonnes

Forests cover about 38 per cent of the area. Important forest products are timber, bamboo and *agar*.

INDUSTRY

There is no major industry in Mizoram. Handloom and handicrafts are the cottage industries Rice milling, oil and flour milling, mechanised bamboo workshops, saw milling, brick making, aluminium casting and furniture workshops are some of the small industries which have been established. A survey conducted in 1973-74 has established that there is sufficient raw material for establishing a paper-pulp project

IRRIGATION AND POWER

Schemes like the cementing for water points, construction of small reservoirs at the collection points in the streams or springs and some improvised way of bringing water as near the villages as possible are being implemented. Irrigation is difficult because of the mountainous terrain.

There are seven diesel power stations to generate electricity mainly for domestic consumption at Aizawl, Lunglei, Lawngtlai, Champhai and Hnahthial. The total power generation capacity is estimated to be about 1,876 kw.

GOVERNMENT *Lt. Governor* : N P. Mathur

Council of Ministers[1] *Chief Minister* : Thenphunga Sailo
*Minister* : Lalhmingthanga

High Court The jurisdiction of Gauhati High Court extends over Mizoram

Public Service Commission Appointment of Class I and II officers is made by the Lt. Governor.

*Chief Secretary* : Surendra Nath

## PONDICHERRY

| *Area* : 480 sq. km | *Population* : 4,71,707 |
| --- | --- |
| *Capital* : Pondicherry | *Principal languages* : Tamil and French |

AGRICULTURE Nearly 45 per cent of population of Pondicherry is engaged in agricultural and other allied pursuits. Irrigated area forms about 83 per cent of the total cultivated area. Rice is the main food crop. Other crops grown in small quantities are jowar, bajra and ragi Sugarcane, groundnut and cotton are the principal cash crops. Production of foodgrains in 1976-77 was 1 02 lakh tonnes and sugarcane 2 10 lakh tonnes. Forests are practically non-existent

INDUSTRY There are 746 small scale industries of which textiles, sugar, electrical appliances, camphor, leather goods, wooden articles, electronic items, plastics, steel furniture and bicycle parts are the main industries The government distillery at Pondicherry, expanded in 1973, manufactures industrial alcohol, bottled arrack and denatured spirit

IRRIGATION AND POWER There is no major irrigation project in Pondicherry Some minor irrigation schemes include boring of wells

There are no power generation projects All the 333 villages were electrified by 31 March 1974 as against only 72 in 1971. For irrigation, 7,199 pumpsets/tube-wells had been energised by 30 September 1977.

GOVERNMENT *Lt. Governor* : Bidesh Tukaram Kulkarni

Council of Ministers[2] *Chief Minister* : S. Ramaswamy
*Cabinet Minister* : D. Ramachandran

Legislative Assembly[2] *Speaker* . K Kandhi
*Dy. Speaker* . S Pazhaninathan

High Court[2] The jurisdiction of Madras High Court extends over Pondicherry For list of Judges, see under Tamil Nadu.

[1]As on 3-6-1978 [2]As on 5-11-1977

Public Service Commission

Recruitment is made through the Union Public Service Commission.

*Chief Secretary* : E. S. Parthasarathy

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

| | *District* | *Area (sq km)* | *Population (1971 census)* | *Headquarters* |
|---|---|---|---|---|
| 1 | Karaikal | 161 | 1,00,042 | Kamikal |
| 2 | Mahe | 9 | 23,134 | Mahe |
| 3· | Pondicherry | 290 | 3,40,240 | Pondicherry |
| 4. | Yanam | 20 | 8,291 | Yanam |

1976

January

1 Tamil Nadu wins the National Volleyball Championship defeating Railways at Tiruchirapalli.

— The waters of river Ghaghra diverted for irrigation, nearly two years ahead of schedule

2 Dr Sarojini Mahishi, Minister of State for Law, Justice and Company Affairs, resigns

3 The 63rd session of the Indian Science Congress inaugurated by Prime Minister Indira Gandhi at Vishakhapatnam

4 A Janata Front, comprising the Congress (O), Jana Sangh, Bharatiya Lok Dal and the Socialist Party, formed in Parliament

— The Paradeep port opened for regular liner service

— India wins Begum Rasool Trophy in the International Women's Hockey Tournament at Madras.

5 The winter session of Parliament opens

— Bali Ram Bhagat elected Speaker of the Lok Sabha.

— The Congress expels seven members of Parliament, including Chandra Shekhar and Mohan Dharia, from the Party

7 Bengal wins the National Football Championship, defeating Karnataka by 3-1 at Kozhikode

— A 265 ft suspension bridge across the Teesta river at Rabum, about 110 km north of Gangtok inaugurated

8 The President issues an order suspending the right to move courts for the enforcement of rights conferred under Article 19 of the Constitution for the period of the Emergency

— India win the Rene Frank International Hockey Tournament, defeating Belgium 2—0 in the final at Madras

— Anil Nayyar wins the National Squash Championship, defeating N Senapaty in New Delhi

10 Uma Shankar Dikshit takes over as Karnataka's Governor.

— Mohanlal Sukhadia sworn in as Governor of Andhra Pradesh

11 A four-day international seminar on Buddhism and Jainism begins at Cuttack

— Services retain the men's title in the 26th National Basketball Championships at Calcutta

13 Ustad Ahmed Jan Thirakwa, the tabla meastro, dies at Lucknow.

14 The 25th Pugwash Conference at Madras addressed by the Prime Minister.

15 India to export 5,000 tonnes of pig iron and 2250 tonnes of bidi leaves to Pakistan under an agreement signed at Karachi

16 The World Book Fair opens in New Delhi

— Acharya Vinoba Bhava inaugurates at Paunar a conference of intellectuals (Acharyas) called by him to discuss the current situation in the country.

17 President Julius Nyerere of Tanzania presented the 1973 Jawaharlal Nehru Award for Peace and International Understanding.

— Bihar and Orissa reach an accord on joint sharing of waters of the Subarnarekha

18 Gyani Gurmukh Singh Musafir, former Punjab Chief Minister, dies in New Delhi

20 The Burmah Shell take over bill approved by Parliament

21 Narain Dutt Tewari sworn in as Chief Minister of Uttar Pradesh.
23 French Prime Minister Mr. Jacques Chirac, arrives in New Delhi.
24 India and France sign in New Delhi three agreements to bolster economic and technical cooperation.
27 Bill on abolition of bonded labour approved by Parliament.
29 The one-man Chasnala Inquiry Commission begins its probe into causes of Chasnala mine disaster.
— Conservation of Foreign Exchange and Prevention of Smuggling Activities (Amendment) Bill, 1976 passed by Parliament.
30 Motor Vehicle (Amendment) Bill providing for issue of national permits for motor vehicles approved by Parliament.
31 President's rule in Tamil Nadu. State Assembly dissolved.
— Air Marshal H. Moolgavkar takes over as Air Chief Marshal.
— The four news agencies agree to use one credit line—Samachar—from 1 February.

February

1 World's thickest coal seam, measuring 153-metres, discovered in Jhinguda colliery (Bihar).
3 Mr Justice R. S. Sarkaria of Supreme Court to probe charges against former Tamil Nadu Chief Minister Karunanidhi and some other Ministers.
4 Parliament Proceedings (Protection of Publication) Repeal Bill passed by Parliament.
6 India recognises MPLA Government of Angola headed by Dr. Agostinho Neto.
— Urban Land (Ceiling and Regulation) Bill passed by Parliament.
7 Ritwik Ghatak, dies at Calcutta.
10 India and Sri Lanka sign three agreements on economic cooperation
— The first ever trade agreement between India and Algeria signed, providing for import of crude and petroleum products by India.
12 The Rs 110 crore Idukki hydro-electric project in Moolamattom, Kerala, dedicated to the nation by the Prime Minister.
13 Burmah Shell, which has been nationalised, renamed Bharat Refineries
— Taking or giving of dowry by central government employees prohibited.
16 India and Jordan sign in New Delhi a cultural agreement for five years.
17 Dr. Nagendra Singh, Judge of International Court of Justice, elected Vice President of the Court at the Hague.
— India lose to New Zealand the third Cricket test by an innings and 33 runs at Willington. Series is drawn, India having won the first test and the second being drawn.
18 King Taufa Ahau Tupou of Tonga arrives in New Delhi on a four day state visit.
— INS Udayagiri, the third India-built warship commissioned in Bombay.
19 India and Portugal sign a trade agreement in Lisbon.
20 Asia's largest seismic processing computer centre opened at Institute of Petroleum Exploration, Dehra Dun.
— Drilling for oil starts some 64 km northwest of Bombay High in the continental shelf area
— Dispute over sharing of Ravi-Beas waters between Punjab and Haryana settled.

| | | |
|---|---|---|
| | 21 | Sahitya Akademi awards for 1975 presented to 17 authors in different languages |
| | 24 | Jayakwadi dam on Godavari in Maharashtra inaugurated by the Prime Minister. |
| | — | Railways retain National Hockey Championship defeating the Services 1—0 in the final at Cuttack |
| | 25 | India and Jordan sign in Amman a five year economic and trade agreement covering increased exchanges and mutual port facilities. |
| | 26 | Vishnu Sakharam Khandekar, Marathi writer awarded in New Delhi the Bharatiya Jnanpith Award for 1974 for his novel "Yayati" |
| | — | Congress President appoints a ten-member committee with Shri Swaran Singh as Chairman to study and suggest amendments to Constitution. |
| | 27 | K C. Reddy, former Chief Minister of Karnataka and former Governor of Madhya Pradesh, dies in Bangalore. |
| March | 1 | Two ordinances to facilitate separation of accounts from audit both at Union and state levels as part of reforms in financial administration promulgated by the President |
| | — | Admiral Jal Cursetji takes over as Chief of Naval Staff |
| | 2 | Government decides to abolish reserve system in army and to introduce in its place longer colour services |
| | 5 | India provides a stand-by credit of Rs 10 crores to Nepal, under an agreement signed in New Delhi |
| | 8 | Pipeline Inquiry Commission, headed by Justice J N Takru, in its report presented to Parliament, blames P R Nayak, then managing director of Indian Refineries Limited, M. Gopala Menon, then General Manager, and M. V. Rao, then financial controller for showing undue favours to Bechtel Corporation, a US firm. |
| | 12 | Gujarat comes under President's rule Assembly kept under suspension |
| | 23 | India and Sri Lanka sign in New Delhi an agreement which provides for demarcation of maritime boundaries |
| | — | India and Indonesia arrive at a continental shelf boundary agreement in New Delhi |
| | 24 | The 1975 Sangeet Natak Akademi fellowships and awards to distinguished musicians and artistes presented. |
| | — | Indo-Burmese joint boundary commission demarcates, in New Delhi, most of 1,600 km boundary between two countries |
| | 26 | Haryana Governor B N. Chakravarty passes away in Calcutta |
| | 27 | As a gesture of friendship towards Bangladesh, India unilaterally decides to reduce withdrawal of water at Farakka |
| | 29 | Weekly "Employment News" (English) and "Rozgar Samachar" (Hindi) released |
| | 30 | Eight States of eastern region-Bihar, Orissa, West Bengal, Assam, Meghalaya, Manipur, Nagaland, Tripura and Union Territory of Mizoram agree to allow goods vehicles to operate on national and state highways in any of the states on payment of tax at a single point |
| April | 1 | Doordarshan separated from Akashvani Prime Minister inaugurates the new set up |
| | 3 | Rupee revalued by another 2 03 per cent in terms of pound sterling |

5 Antiques and Art Treasury Act, 1972, comes into effect throughout India, except Sikkim.
7 Prime Minister of Nepal Dr. Tulsi Giri arrives in New Delhi on his first official visit to this country.
10 The first Indian Agriculture Congress meets in New Delhi. Address by the Prime Minister.
12 Silver jubilee of Bhoodan movement.
— India win third cricket test against West Indies by six wickets at Port of Spain.
— Second blast furnance of Bokaro Steel Plant commissioned
13 Group insurance scheme made compulsory for all ranks of Army with effect from 1 January 1976.
14 An inter-state agreement for annual supply of 15 TMC (thousand million cubic feet) of Krishna water from Maharashtra, Karnataka and Andhra Pradesh to Madras city signed in New Delhi.
15 K R. Narayanan, Secretary in External Affairs Ministry, appointed ambassador to People's Republic of China.
— India and USSR sign in New Delhi a new long-term trade agreement for 1976-80, providing for an increase in total trade turnover to Rs 935 crores by 1980
16 National population policy announced.
20 India lodges strong protest with Bangladesh against "unprovoked shooting" from across the border into Meghalaya in which a member of BSF patrol accompanying Director General, BSF, suffered injury
21 Sankar Kumar Ghose, former Finance Minister of West Bengal sworn in as union Minister of State for Planning
22 India and Libya sign in New Delhi a protocol for industrial cooperation to set up certain joint ventures.
— India and Mauritius sign in New Delhi an agreement on Indian assistance for developing small-scale industries in Mauritius.
— India and Soviet Union sign in Moscow a protocol to facilitate India to launch her second earth satellite from a Soviet cosmodrome in April 1978.
25 Prime Minister lays foundation-stone of Rs 66 crore Kopili hydel project at Garampani on the Assam—Meghalaya border, about 100 km from Shillong.
— India loses fourth and final test match at Kingston, Jamaica, and series by 1—2 to West Indies.
26 Dr Raul Prebisch, renowned Latin American economist, receives 1974 Jawaharlal Nehru Award for peace and international understanding.
27 A five-member Indian delegation led by C C Patel Additional Secretary, Department of Irrigation arrives in Dacca for technical talks on Farakka
28 Supreme Court holds that habeas corpus petitions of detenus are not maintainable during emergency
— India and Rumania sign in New Delhi a working programme for three years for cooperation in science and technology A trade protocol is also signed for doubling the trade between the two countries by 1980
29 Ordinance prohibiting unauthorised mining of coal promulgated
— India and Tanzania sign in Dar-es-Salaam an agreement for setting up 52 small-scale industrial projects in rural areas of Tanzania

30 Oil and Natural Gas Commission strikes oil in second of the three off-shore basin structures, 64 km from Bombay

May

1 Hot strip mill at Bokaro inaugurated
— Koka Subba Rao, former Chief Justice of India, passes away in Bangalore.
8 The two-day Conference of Chief Secretaries of states and union territories on steps to tone up administration recommends that service matters should be taken out of courts' jurisdiction
— Rohtak station of All India Radio in Haryana goes on the air
10 Amir Abbas Hoveyda, Prime Minister of Iran, arrives in New Delhi.
— "Mahaganga", built at Garden Reach workshop, a special dredger for Haldia launched.
12 Indo-Pak official-level talks on restoration of links begin at Islamabad.
14 The Sarkaria commission commences inquiry
— India and Iran sign in Bombay a protocol for economic cooperation between the two countries.
— India takes all necessary measures to deal with the threatened march by the Bangladesh leader Maulana Bhashani and his followers to Farakka
18 India and Pakistan decide to resume diplomatic relations and restore all severed links within a week from July 17
20 Madame Binh, Foreign Minister of the Provisional Revolutionary Government of South Vietnam, arrives in New Delhi
21 Manea Manescu, Prime Minister of Rumania, arrives in New Delhi
— Commercial production of crude from two wells in the Bombay High begins
23 Oil found at Kharsang in the Ningru area in the Tirap district of Arunachal Pradesh.
24 India and Rumania sign in New Delhi a long-term trade protocol on economic, commercial, scientific and technological cooperation and also a cultural exchange programme
25 Prime Minister Indira Gandhi and 66 MPs receive Tamrapatras at a function in New Delhi
28 The Aid-India Consortium pledges a sum of $ 170 crores as aid and grants to India for 1976-77
— India's new ambassador to the Soviet Union I K Gujral presents credentials to President Podgorny.
29 The All-India Congress Committee unanimously endores the recommendations of the Swaran Singh Committee amendments to the Constitution
— The Goa Shipyard, a subsidiary of the State-owned Mazagon Docks, enters the field of warship construction
31 The Krishna Waters Dispute Tribunal award announced

June

1 A new postal service "Same Day Delivery" inaugurated in New Delhi
7 Syed Mir Quasim sworn in as Minister in the Union Cabinet
— India and Poland sign in Warsaw a four-year agreement on economic, scientific and technical cooperation
8 Prime Minister arrives in Moscow on a six-day official visit to the Soviet Union

16 An ordinance promulgated extending by one more year the power of the Government to detain a person under the Maintenance of Internal Security Act without giving him the grounds for his detention.
— Jagannath Kaushal sworn in as Governor of Bihar.
— Mohan Lal Sukhadia takes over as Governor of Tamil Nadu.
— R. D. Bhandare sworn in as Governor of Andhra Pradesh.
17 Memorandum of understanding on restoration of Indo-Pak air links and resumption of overflights signed in New Delhi.
20 India and the Soviet Union sign a protocol for consolidation and growth of shipping services between the two countries.
21 Prime Minister inaugurates the 400th anniversary of the Haldighati battle.
— K Shankar Bajpai appointed India's ambassador to Pakistan.
23 Government issues a notification permitting the resumption of trade by private parties between India and Pakistan from July 15 onwards.
— Three heavy engineering units-the Burn Company, Indian Standard Wagon Company and Braithwaite and Company-nationalised under two ordinances issued by the President.
24 Dhiren Ganguli, one of the pioneers of Indian cinema to get the Dada Saheb Phalke Award for 1975.
25 The India-Sri Lanka tele-communication link via satellite inaugurated.
— The Rs 12-crore methanol plant of the Assam petro-Chemicals Limited (APL) commissioned.
26 President Fakhruddin Ali Ahmed arrives in Tehran on a five-day State visit to Iran.
— Direct satellite telecommunication link between India and Iran established.
27 The third coke oven battery of Bokaro Steel Plant commissioned.
28 India and Pakistan sign an agreement in New Delhi for the resumption of rail traffic between Amritsar and Lahore across wagah.

July

1 Prime Minister Indira Gandhi arrives in Berlin on an official visit to German Democratic Republic.
— The underground Mizo National Front decides to lay down arms after 10 years of insurgency and to abide by the Constitution.
2 India and Uganda sign in New Delhi an agreement providing for Indian assistance to that country in industrial, technical scientific and cultural fields.
3 A "Rashtriya Barh Ayog" (National Flood Commission) set up to evolve an integrated and scientific plan to tackle floods in the next two or three decades.
4 Prime Minister Indira Gandhi arrives in Kabul on an official visit to Afghanistan
6 Operations by the security forces throughout Mizoram suspended following understanding between the Central Government and the Mizo National Front leader Laldenga.
8 Ministerial-level Conference of the Non-Aligned Nations on the Press Agencies Pool inaugurated by the Prime Minister in New Delhi.
— The Barauni unit of the Fertilizer Corporation of India inaugurated.
10 National film awards for 1975 announced

— The Kannada film "Chomana Dudi" and the Hindi film "Mausam" get the "Swaran Kamal" and the 'Rajat Kamal' respectively. The best actor and best actress awards go to M. V. Vasudeva Rao (Chomana Dudi) and Sharmila Tagore (Mausam).
12 China appoints Chen Chao Yuan as its ambassador to India.
13 The Conference of Non-aligned nations on the Press Agencies Pool concludes in New Delhi Agrees to set up a news agencies pool of the non-aligned nations and to constitute a coordination committee headed by India to run it for the next three years.
14 Indian Airlines and Pakistan International Airlines agree to handle services in each other's country under a memorandum signed in Karachi.
16 India and Pakistan sign in Islamabad overflights and air services agreement between the two countries
— A Seaward Defence Boat Mark II, built at the Garden Reach Workshops at Calcutta, launched.
17 Dr A. Ramaswamy Mudaliar, passes away in Madras
19 India and the Soviet Union sign in New Delhi a new merchant shipping agreement according "most favoured nation" treatment by each other to the other country's vessels.
21 Air links between India and Pakistan restored
22 With the maiden run of the Amritsar-Lahore Express, the rail links between India and Pakistan resumed after a lapse of eleven years.
— The Bharat Refineries complex at Trombay commences processing of Bombay High crude
24 Indian and Pakistani ambassadors present credentials in Islamabad and New Delhi respectively
— India's ambassador to China, K. R Narayanan presents credentials in Peking

August

1 The newsprint policy announced.
3 Samachar begins exchange of news with a number of national news agencies in the non-aligned world.
— The electrified New Delhi-Howrah rail route commissioned
5 The Foreign Contribution (Regulation) Act, 1976 restricting the acceptance of foreign contributions or hospitality by Indian citizens comes into force.
8 Mir Qasim, Minister without Portfolio, is allotted Ministry of Civil Supplies and Co-operation
10 The monsoon session of Parliament begins
— The United Goans Party merges with the Congress Party.
13 King Jigme Singhye Wangchuk of Bhutan arrives in New Delhi on a two-day visit
14 Dr Jonas Salk, American discoverer of the antipolio vaccine to get the 1975 Jawaharlal Nehru Award for Peace and International Understanding
— Jaisukhlal Hathi sworn in as Governor of Haryana.
17 Prime Minister Indira Gandhi addresses the non-aligned summit in Colombo.
22 Distribution and sale of Lambretta and Vijay deluxe scooters decontrolled with immediate effect
27 Karnataka, Kerala and Tamil Nadu reach an "understanding" over the Cauvery waters dispute
— Major General (Miss) Gertrude Alice Ram, the first woman General in the Indian Army, takes over as director of Military

Nursing Services at the Army Headquarters.
— Playback singer, Mukeshchandra Zoravarchand Mathur, dies at Detroit (USA).
30 Parliament appoves the Labour Provident Fund Laws (Amendment) Bill which provides insurance cover to about 84 lakh workers covered by the Employees Provident Fund Act and the Coal Miner Provident Fund Act.
31 Sombhu Mitra, the Indian stage personality and four others receive Magsaysay award for outstanding work in their respective fields at Manila, Philippines.

September

1 Parliament approves the fifth schedule to the Constitution (Amendment) Bill, 1976, seeking to give a better deal to the tribal people.
2 V. S Khandekar, the Marathi novelist and Jnanpith Award winner, dies at Miraj near Sangli in Maharashtra.
6 Exchange of air mail between India and Pakistan resumed.
7 A seven-member Bangladesh delegation headed by Rear Admiral M H. Khan, Deputy Chief Martial Law Administrator, arrives in New Delhi for talks on Farakka issue.
— The 1976 Nehru Literacy Award goes to Dr. T. A. Koshy, Project Director, Council for Social Development.
— Surendra Mohan Ghosh, great revolutionary dies in New Delhi.
10 An Indian Airlines Boeing 737 on a scheduled flight from Delhi to Bombay with 79 passengers and a crew of seven hijacked to Lahore.
— The three-day Indo-Bangladesh talks on the Farakka issue end in New Delhi.
11 The hijackers of the Indian Airlines Boeing 737 held at Lahore; passengers and crew return to New Delhi.
13 The 220 km long Trivandrum-Ernakulam broad-guage railway line at Trivandrum inaugurated
— An international seminar on Himalayan Geology begins in New Delhi
15 Kewal Singh, former Foreign Secretary appointed India's ambassador to the United States.
18 India and Bangladesh sign, in Calcutta, border maps and documents on the demarcation of boundary between the two countries.
20 The Chinese ambassador to India Chen Chao-Yuan presents credentials
22 Mrs Margaret Thatcher, leader of the British Conservative Party, arrives in New Delhi on a three-day visit.
24 The National Development Council meets in New Delhi after a lapse of nearly three years.
25 The National Development Council approves the final draft of the Fifth Plan.
26 The 1975 Jnanpith Award goes to P. V. Akilandam, Tamil writer, for his novel 'Chittirappavai'.

October

1 The centenary celebrations of Vande Mataram, the national song, begin.
4 Talks on the Salal project between Pakistan and India at foreign secretary's level begin.
7 Talks between India and Pakistan on the Salal project end inconclusively.

| | | |
|---|---|---|
| | 8 | Prime Minister Indira Gandhi arrives in Mauritius on an official visit |
| | 9 | The Bombay-London direct dialling telephone link inaugurated. |
| | 11 | Prime Minister Indira Gandhi arrives in Tanzania. |
| | 12 | An Indian Airlines plane crashes in Bombay, killing all the 89 passengers and 6 crew members. |
| | 14 | Prime Minister Indira Gandhi arrives in Lusaka, Zambia. |
| | 15 | Representatives of the Government and the Caltex Petroleum Corporation sign a memorandum of understanding on the transfer of 100 per cent shares of the company in India to the Government |
| | 17 | The World's highest petroleum retail outlet of the Indian Oil Corporation inaugurated in Leh |
| | — | Recruitment of Indians for employment abroad by any agency which is not authorised by the Government banned |
| | 21 | Second round of talks between India and Pakistan on Salal hydro-electric project end in Islamabad |
| | 23 | India elected to the Security Council for a two year term beginning from 1 January 1977. |
| | 25 | The fifth leander class frigate, INS Taragiri, built by the state-owned Mazagon Dock for the Indian Navy launched. |
| | — | The Archbishop of Canterbury Dr Donald Coggan arrives in New Delhi on a four day visit at the invitation of the Church of India. |
| | 26 | Chief Ministers of Orissa and Bihar sign an agreement on the implementation of the Subarnarekha river valley project. |
| | 29 | India resumes shipment of tea to Pakistan after a break of 11 years |
| November | 1 | Government constitutes a national committee on women with the Prime Minister as President |
| | 2 | The Lok Sabha passes the Constitution (44th Amendment) Bill |
| | 5 | The Lok Sabha adopts the bill seeking to extend the life of the present House till March 1978 |
| | 8 | The West Bengal Government nationalises the 85-year-old Calcutta Tramways Company, the management of which was taken over in 1967 |
| | 9 | Italy and India sign their first cultural agreement in Rome. |
| | 11 | Rajya Sabha unanimously passes the Constitution (44th Amendment) Bill |
| | 12 | Parliament approves the bill seeking to extend the duration of the present Lok Sabha by another year till March 1978 |
| | — | President Fakhruddin Ali Ahmed presents 23rd National Film Awards and formally inaugurates the National Film Festival in New Delhi |
| | 13 | Dr Guiseppe Tucci of Italy selected for the 1976 Jawharlal Nehru Award for peace and international understanding |
| | 15 | Subramanian Swamy (JS) expelled from the membership of the Rajya Sabha |
| | — | India win the first cricket test against New Zealand at Bombay by 162 runs. |
| | 16 | Bulgarian President Todor Zhivkov arrives in New Delhi on a six-day visit to India |
| | 19 | Protection of Civil Rights Act comes into force |
| | 21 | The two-day session of the All India Congress Committee begins at Jawahar Nagar (near Gauhati) |

22 An eight-member Council of Ministers headed by Williamson Sangma sworn in Shillong (Meghalaya)
— An agreement for the outright takeover of Caltex operations in India signed in New Delhi.
— The fourth Indian Open Grand Prix tennis tournament begins at Bangalore.
23 The second cricket test between India and New Zealand ends in a draw at Kanpur.
24 Under an agreement signed in New Delhi, India to import 1.4 million tonnes of petroleum products from the Soviet Union during 1977.
— The Ganga waters question is taken off the agenda of the UN General Assembly.
29 Prabhat Ranjan Sarkar Alias Anand Murti, Chief of the outlawed Ananda Marg and four of his followers sentenced to life imprisonment.
— Australia's Kim Warwick wins the men's singles title in the fourth Indian Open Grand Prix tennis tournament at Bangalore, defeating India's Shashi Menon 6-1, 6-1.

December

3 India and Rumania sign at Bucharest a protocol extending their cooperation to new areas like metallurgical industries, chemicals, drugs and pharmaceutical and shipping.
5 India win the Davis Cup East Zone quarter-final against Japan 3—2 at New Delhi.
6 The ministerial level Indo-Bangladesh talks on the sharing of Ganga waters begin at Dacca.
— The Supreme Court upholds the Presidential order making teaching and training of Hindi for employees of the central government obligatory.
7 President Pal Losonczi of Hungary arrives in New Delhi.
— The first ever trade agreement between India and Portugal signed in New Delhi.
8 The Indo-Bangladesh ministerial-level talks on the sharing of Ganga waters adjourn in Dacca.
— The Rs 97.25 crore outer harbour at Visakhapatnam dedicated to the nation
9 Dr Nagendra Singh appointed President of the International Court of Justice at the Hague
11 Ali Yavar Jung, Maharashtra Governor, dies at Bombay.
13 The remains of the martyr Madan Lal Dhingra arrive in New Delhi.
16 President's rule in Orissa; assembly kept under suspended animation
18 The President gives assent to the Constitution (forty-fourth amendment) Bill, 1976
— Vijay Amrithraj wins the men's singles title of the National Lawn Tennis Championships at Bombay, defeating Anand Amrithraj 6—4, 7—5
19 Nirupama Mankad wins the women's singles title in the National Lawn Tennis championships at Bombay defeating Susan Das 6—4, 6—3.
22 Reshuffle of the Union Council of Ministers : Hitendra Desai appointed Minister for Works and Housing, D P. Chattopadhaya

promoted to Cabinet rank; and Raj Bahadur, Union Minister for Tourism and Civil Aviation, resigns.
— MCC win the first cricket test against India in New Delhi by an innings
24 A new Congress Ministry for Gujarat headed by Madhav Singh Solanki sworn in; President's rule revoked.
26 Yashpae, a Hindi novelist and revolutionary, dies at Lucknow.
27 Foundation-stone laid of the Rs 29 crore cement plant at Neemuch in Madhya Pradesh
29 A new Congress ministry of Orissa headed by Binayak Acharya sworn in; President's rule revoked.
30 Ordinance issued for the take over of the Caltex Oil company in India.
31 Virbhadhra Singh sworn in as Deputy Minister for Tourism and Civil Aviation.

**1977**
**January**

3 The Sixth International Film Festival begins in New Delhi.
4 A five-day conference of Ministers of Industry from 22 developing countries begins in New Delhi.
5 The Kumbh Mela begins at Allahabad.
6 MCC win the second test against India at Calcutta by ten wickets.
9 Regional conference of the International Council of Women inaugurated by the Prime Minister in New Delhi.
10 Dr. Jonas Edward Salk receives the 1975 Jawaharlal Nehru Award for Peace and International Understanding in New Delhi.
11 The Satluj-Yamuna link canal in Haryana inaugurated.
14 India and Indonesia sign in New Delhi an agreement for demarcating the entire maritime boundary between the two countries.
15 India notifies the contiguous and exclusive economic zones and specifies the limits of historic waters in the Palk Strait, Palk Bay and the Gulf of Mannar
16 In the Sixth International Film Festival in New Delhi, Japan's 'Mon and Ino' and India's 'After the Silence' get the Golden Peacock awards in the best feature film and short film category respectively. Awards for best actor and actress go to Carl Gustav Lindstedt and Jane Plichtova respectively and the award for the best direction goes to Soviet director Ali Khamraev.
18 Prime Minister Indira Gandhi, in a nation-wide broadcast, announces that she has advised the President to dissolve the present Lok Sabha and order fresh elections.
19 The President dissolves Lok Sabha
— Morarji Desai and other opposition leaders released.
— Sarkaria Commission submits its first report to the Union Government
— MCC win the third test at Madras and also the 'Rubber' against India
20 The Government relaxes rules of emergency to permit normal political activity and electioneering and decides not to enforce press censorship
— Four parties—Congress (O), Jana Sangh, Bharatiya Lok Dal and the Socialist Party-agree to work as one party under the name Janata Party
23 Janata Party sets up a 27-member national committee with Morarji Desai as Chairman.
29 Mirza Hameedullah Beg sworn in as Chief Justice of India.

February

2 Jagjivan Ram, Union Agriculture and Irrigation Minister, resigns from the Cabinet and the Congress Party.
— Polling dates for the Lok Sabha elections in March announced.
— India win at Bangalore the fourth cricket test against MCC by 140 runs
3 Two ordinances providing for the setting up of two authorities, one to decide disputes about election of the President and the Vice-President and the other about the Prime Minister and Speaker promulgated.
5 Election Commission issues a code of conduct for voluntary observance by all political parties and candidates.
— Jagjivan Ram named President of the Congress for Democracy.
6 President Fakhruddin Ali Ahmed arrives in Kuala Lumpur in the course of his state visits to Malaysia, Philippines and Burma.
10 President Fakhruddin Ali Ahmed returns to New Delhi from Malaysia, cutting short his foreign tour due to indisposition.
— The President issues a notification under Section 14 of the Representation of the People Act, 1951, calling upon all Parliamentary Constituencies to elect 542 members to the new Lok Sabha.
11 President Fakhruddin Ali Ahmed passes away in New Delhi.
— B. D. Jatti sworn in as Acting President
16 The fifth and final cricket Test in the current series between India and MCC ends in a draw at Bombay.
18 India and the Soviet Union sign in Moscow a trade protocol for exchange of 10 lakh tonnes of Soviet crude and Indian goods of equal value in 1977.
19 Government prohibits 106 organisations from accepting any foreign contributions without its prior permission.
22 Government constitutes a Banking Commission under the chairmanship of A. N. Banerjee.
25 India's second earth station for satellite communication at Dehra Dun inaugurated.
28 Rajya Sabha session begins.

March

8 Krishan Chander, noted urdu writer, dies at Bombay.
11 U.N. Dhebar dies at Rajkot.
16 Polling in the Lok Sabha election starts.
18 Siddheshwari Devi, musician, dies in Delhi.
20 Smt. Indira Gandhi defeated in Rae Bareli (U.P.).
21 Internal emergency promulgated on 25 June 1975 withdrawn.
— Press censorship withdrawn
— Kerala ruling front wins 111 out of 140 Vidhan Sabha seats.
22 Janata and its allies gain absolute majority in Lok Sabha.
— Smt. Indira Gandhi resigns as Prime Minister.
— Ban on RSS and 26 other organisations lifted.
— A. K. Gopalan, Marxist leader, dies at Trivandrum.
23 Y. B. Chavan elected leader of Congress Party in Parliament.
24 Morarji Desai elected leader of Janata Parliamentary Party.
— Morarji Desai sworn in as new Prime Minister.
25 19-member Union Cabinet announced.
— Sixth Lok Sabha session begins.
— Kerala Ministry headed by K. Karunakaran sworn in.
26 Fourteen ministers of the new Union Cabinet sworn in.
— Sanjiva Reddy elected speaker of Lok Sabha.
— Baroda Dynamite case withdrawn.

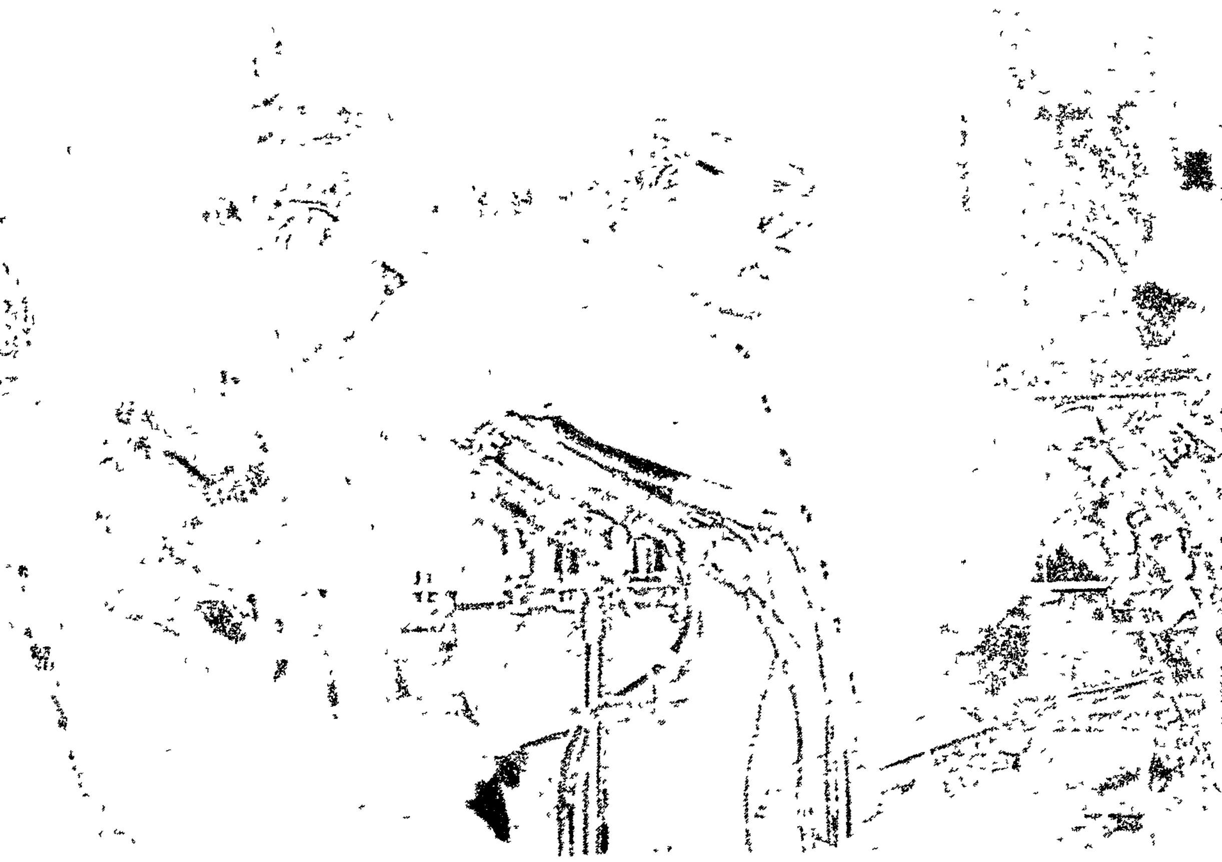
27 Government revokes the external emergency promulgated on 3 December 1971.
— Governor's rule in Jammu and Kashmir : State assembly dissolved.
28 Jagjivan Ram and four more members of the Union Cabinet sworn in.
— Acting President B. D. Jatti address a joint session of parliament and outlines new government's policies.
30 Ram Niwas Mirdha elected Deputy Chairman of Rajya Sabha.
— D. R Kohli sworn in as Lt Governor of Delhi.

April 1 Godey Murahari elected Deputy Speaker of Lok Sabha.
3 Brian Jones of Australia wins the Indian Open Golf Championship in New Delhi.
5 Y. B. Chavan broadcasts to the nation, first of its kind, by any leader of the Opposition.
7 The Prime Minister, Shri Morarji Desai, inaugurates, in New Delhi meeting of the coordinating bureau of non-aligned nations.
— Dr Robert Francis Goheen appointed US ambassador to India.
9 Rajya Sabha approves the Parliamentary Proceedings (Protection of publication) Bill. Lok Sabha passed it on 6 April.
— Chief Justice Govindan Nair sworn in as acting Governor of Tamil Nadu following resignation of Mohanlal Sukhadia.
— Hem Barua, 62, Parliamentarian, litterateur and journalist, dies at Gauhati
11 A nine-member Janata Front Ministry headed by Babubhai Patel sworn in in Gujarat, following the resignation of the 15 week old congress ministry headed by Madhav Singh Solanki on 8 April.
— Rajya Sabha adopts the Disputed Elections (Prime Minister and Speaker) Bill, as passed by Lok Sabha.
12 Government raises procurement price of wheat from Rs 105 a quintal to Rs 110 and removes restrictions on inter-state movement of the grain.
— Ministry of Health and Family Planning redesignated as Ministry of Health and Family Welfare.
14 Swaran Singh elected President of the Congress Party following resignation by D K. Barooah on 13 April.
— Congress Working Committee expels former Defence Minister Bansi Lal and decides to reprimand V. C. Shukla, former Information and Broadcasting Minister
17 Vasantrao B. Patil sworn in as Chief Minister of Maharashtra.
18 Union Home Minister Charan Singh asks Chief Ministers of nine states, where the Congress was virtually rejected in recent Lok Sabha elections, to advise their Governors to dissolve the legislative assemblies and seek a fresh mandate from the people.
— India and Bangladesh reach "an understanding" on the sharing of the Ganga waters
19 A 12-member committee headed by Kuldip Nayar set up to examine the functioning of "Samachar" and make recommendations on its future set up.
23 The Banking Commission appointed by the Government on 28 July 1976 wound up
— A one-man commission headed by Dr. Philipose Koshy to probe into the nature and adequacy of treatment given to Shri Jayaprakash Narayan while in detention during emergency announced.

25 Andrei Gromyko, Soviet Foreign Minister, arrives in New Delhi.
— Seventeen distinguished litterateurs receive at Bangalore sahitya Akademi awards for 1976.
27 New Import Policy for 1977-78 announced.
— Prabhu Das Patwari sworn in as Governor of Tamil Nadu.
— Following the resignation of the Chief Minister K. Karunakaran a new Ministry headed by A. K. Antony sworn in in Kerala.
27 Goa assembly dissolved.
29 A seven-judge Constitution Bench of the Supreme Court unanimously dismisses the suits and injunction applications filed by some state governments against the proposed dissolution of their assemblies.
30 Acting President B. D. Jatti signs proclamations to dissolve the legislative assemblies of nine Congress-ruled states and place them under President's rule.
— Four parties—Congress (O), Jana Sangh, Bharatiya Lok Dal and Socialist Party—at their separate sessions, decide to dissolve themselves and merge into a single party.
— 19 outstanding sportsmen and sportswomen selected for the Arjuna Award for 1975.
— Nearly 250 "notorious smugglers" including Yusuf Patel, Haji Mastan and Sukarnarain Bakhia take pledge before Jayaprakash Narayan at Bombay to renounce smuggling and prevent others from indulging in this activity.

*May*

1 Janata Party formally launched at its inaugural convention at Pragati Maidan, New Delhi.
— Chandrasekhar chosen President of the Janata Party.
— The Chairman of Congress for Democracy, Jagjivan Ram, announces decision to merge into the Janata Party.
5 Sharada Mukherjee sworn in as Governor of Andhra Pradesh.
— INS Dunagiri, fourth lander class frigate built by the state-owned Mazagon Dock, commissioned at Bombay.
6 Kasu Brahmananda Reddy elected President of the Indian National Congress.
— The Supreme Court Constitution Bench gives reasons for its judgment in the state assemblies dissolution case.
— Union Labour Minister Ravindra Varma announces at the tripartite labour conference in New Delhi Government's decision to scrap the National Apex Body—a bipartite body of employers and workers.
9 Government scraps the Compulsory Deposit Scheme as far as it is applicable under the Additional Emoluments (Compulsory Deposit) Act of 1974.
— Mathew Commission inquiring into the circumstances of the death of the former union minister L N. Mishra submits its report.
10 Election Commission announces programme for elections to the legislative assemblies of ten states and two union territories including the metropolitan council of Delhi.
11 Election Commission recognises the Janata Party as a national party, with the symbol "haldhar within a wheel".
12 Raghukul Tilak sworn in as Governor of Rajasthan.
15 A ten-year development plan drawn up by the Indian Renaissance Institute released in New Delhi by Finance Minister H M. Patel.

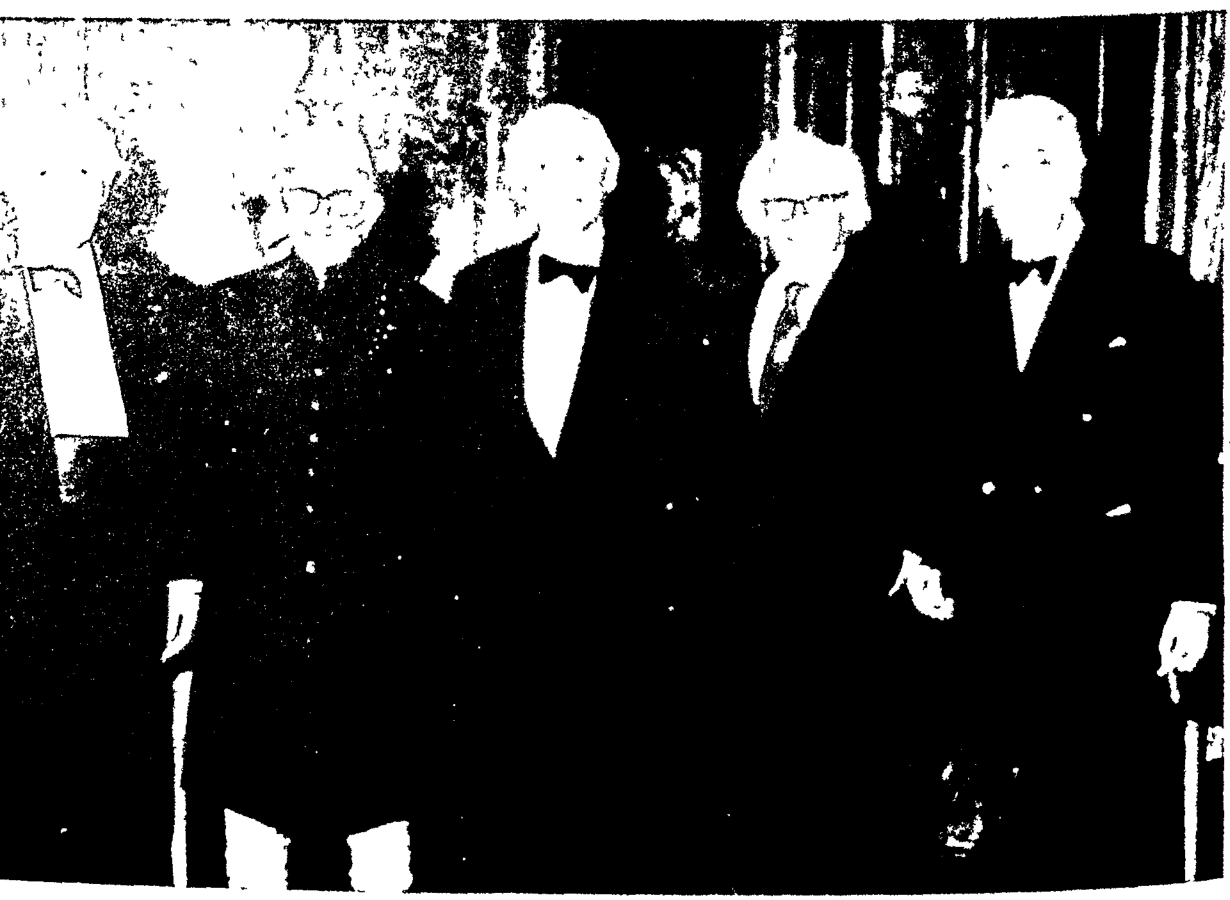


*Chief Justice of India H. M Beg administering oath of office of President of India to Shri N. Sanjiva Reddy on 25 July 1977.*



*Prime Minister Morarji Desai with Soviet leaders, President Brezhnev and Prime Minister Kosygin, on his arrival at Moscow airport on 21 October 1977.*

*Shri Morarji Desai with Harold Macmillan, Alec Douglas-Home, Michael Foot (M.P.) and Lord Mountbatten during his visit to London to attend the Commonwealth Prime Ministers Conference in June 1977*





*President Jimmy Carter of United States with Shri Morarji Desai during the latter's visit to India in January* 1978



*Shri Morarji Desai with British Prime Minister James Callaghan during the latter's visit to India in January 1978.*

16 Manipur put under President's rule following resignation of R. K. Dorendra Singh ministry on 13 May, State assembly suspended.
— Tarkunde Committee report on death of "Naxalites" in Andhra Pradesh in alleged encounters with police says these were plain murders
18 Karnataka Chief Minister Devraj Urs sets up omnibus commission to enquire into charges against himself, his cabinet colleagues and the former ministries headed by Veerendra Patil and Nijalingappa.
— Kerala Chief Minister A. K Antony appoints Commission to go into the Rajan case
19 J. C. Shah, former Chief Justice of Supreme Court appointed to inquire into excesses committed during the emergency.
— Insurance scheme for all central government employees announced.
— India and China resume trade after 15 years.
20 Agreement reached on use of Radio and television for election broadcasts by all recognised political parties.
— Bombay port and dock workers' strike and the strike at the Gujarat Refinery called off.
21 K. K. Das appointed to enquire into and collect facts for a white paper on misuse of mass media during emergency.
— Jayaprakash Narayan returns to Bombay after graft operation in Seattle, USA.
23 A. N. Grover, retired judge of the Supreme Court, appointed by the Centre to inquire into charges against the Karnataka Chief Minister Devraj Urs and some of his cabinet colleagues.
24 Planning Commission reconstituted with the appointment of Dr. D T. Lakdawala as Deputy Chairman and V. G. Rajadhyaksha and Prof Raj Krishna as members
25 A two-man fact-finding committee appointed to collect information on excesses committed in Delhi during emergency.
— Patriot editor, P. Vishwanath, dies in New Delhi.
27 New credit policy announced by the Reserve Bank. Interest rates lowered
28 D. S Mathur, retired Chief Justice of the Allahabad High Court, appointed to inquire into the affairs of Maruti concerns
29 Dr Suniti Kumar Chatterjee, National Professor, dies at Calcutta.
31 Kanchenjunga conquered by two members of an Indian Army expedition
— Karnataka files a suit before the Supreme Court, questioning the validity of the appointment of the Grover Commission by the Centre to probe into charges against Chief Minister Devraj Urs

1 Polling held in Goa, Daman and Diu to elect the 30-member Territorial Assembly.
— Dr. D T. Lakdawala takes over as Deputy Chairman of the Planning Commission, and Dr Raj Krishna as member.
— Haryana Government sets up commission to inquire into police excesses in Rewasa and other places in Bhiwani during March-April 1974.
— India starts using the Franco-West German satellite Symphonie I for domestic telecommunications
2 Saudi Arabia extends its first ever loan to India worth Rs 1C crores for two power projects

3 The Chellappa enquiry Committee set up to investigate if Sanjay Gandhi piloted an Indian Airlines flight in December 1976, submits its report to the Ministry of Tourism and Civil Aviation.

— All criminal cases instituted against Parkash Singh Badal on recommendations of the Chhagani Commission withdrawn.

— 13 Harijans burnt alive by an armed gang in Belchhi village in Patna district.

4 Goa Assembly results announced. Maharashtrawadi Gomantak Party wins 15 seats, Congress 10, Janata Party 3 and Independents 2.

— First Hindu temple built at a cost of $ 700,000 opened in New York.

6 Jaganmohan Reddy, former judge of the Supreme Court, appointed to inquire into the Nagarwala affairs

7 Prime Minister Morarji Desai arrives in London to attend Commonwealth Prime Ministers' conference. Meets Shah of Iran on the way.

— A four-member Goa Ministry headed by Shashikala Kakodkar sworn in

8 Impounding of waters in the Pandoh reservoir of the Beas-Sutlej link project begins.

10 Polling begins in nine states

11 The Budget session of Parliament begins

— Railway Budget presented.

12 Tarkunde Committee on Civil Rights releases its second interim report.

14 Results of assembly elections start coming in.

— Janata gains absolute majority in Haryana, Himachal Pradesh and Rajasthan assemblies and in Delhi Metropolitan Council.

— Akali-Janata-CPI(M) alliance gets absolute majority in Punjab.

15 Janata gets absolute majority in Uttar Pradesh, Madhya Pradesh and Orissa.

— All-India Anna DMK gets absolute majority in Tamilnadu.

— No party gets absolute majority in Pondicherry.

16 Janata gains absolute majority in Bihar.

17 General Budget for 1977-78 presented in Parliament.

— Prime Minister Morarji Desai returns to New Delhi after attending the Commonwealth Prime Ministers' Conference. Meets the French President en route in Paris.

— CPI (M) gets absolute majority in West Bengal.

— Surjit Singh Barnala appointed Minister in the Union Cabinet in Place of Parkash Singh Badal who has resigned.

18 Lok Sabha passes bill seeking to restore to the Supreme Court the power to decide disputes relating to Presidential and Vice-Presidential election.

— S. L Shakdher, Secretary-General of the Lok Sabha, takes over as Chief Election Commissioner.

20 Prakash Singh Badal sworn in as Chief Minister of Punjab

— Andhra Pradesh Government appoints Justice Bhargava, retired Judge of the Supreme Court, to inquire into the killings of extremists in alleged encounters with the police in the state.

21 Janata Ministry headed by Devi Lal sworn in in Haryana.

— Left Front Ministry headed by Jyoti Basu CPI (M) sworn in in West Bengal.

— Rajya Sabha celebrates its Silver Jubilee.

22 Bhairon Singh Shekhawat sworn in as Chief Minister of Rajasthan.
— Shanta Kumar sworn in as Chief Minister of Himachal Pradesh.
23 Janata Party Ministry headed by Ram Naresh Yadav sworn in in Uttar Pradesh.
— Kailash Chandra Joshi sworn in as Chief Minister of Madhya Pradesh
— Chasnala inquiry commission report presented to Parliament.
24 Janata Party Ministry headed by Karpoori Thakur sworn in in Bihar.
— Chief Executive Councillor of Delhi, Kedar Nath Sahni and three Executive Councillors administered oath of office.
— The seventh Finance Commission with former Supreme Court Judge J. M. Shelat as Chairman constituted.
26 Janata Party Ministry headed by Nilamani Routray sworn in in Orissa.
— A committee headed by N. A. Palkhiwala appointed to suggest measures for rationalisation of direct tax laws.
29 In Manipur, Janata Ministry headed by Yangmasho Shaiza sworn in.
30 The AIADMK Ministry headed by M G. Ramachandran sworn in in Tamil Nadu
— Polling begins in Jammu and Kashmir.

2 AIADMK Ministry headed by S Ramaswamy sworn in in Pondicherry.
— G. Narasimhan, managing editor of 'The Hindu', dies at Madras.
4 The National Conference gets absolute majority in elections to the 76-member Jammu and Kashmir Assembly.
5 Aid India Consortium pledges over $ 2 billion aid to India for 1977-78.
6 Portfolios of Communications Minister George Fernandes and Industries Minister Brij Lal Varma interchanged.
9 In Kashmir, the new ministry headed by Sheikh Abdullah sworn in.
10 Atul Bose, artist, dies at Calcutta.
13 Government decides to discontinue national civilian awards.
15 Union Finance Minister H. M. Patel announces tax reliefs totalling Rs 21.6 crores.
16 The Government appoints two-member fact-finding committee on family planning excesses in Delhi during the Emergency.
18 Justice Alok Chandra Gupta of the Supreme Court replaces Justice D. S. Mathur who resigned from the Commission inquiring into the affairs of the Maruti group of concerns.
20 K. S. Hegde unanimously elected Speaker of Lok Sabha.
25 Neelam Sanjiva Reddy sworn in as President of India. He was elected unopposed on 21 July.
26 In Tripura, Janata-CPI (M) coalition Ministry headed by Radhika Ranjan Gupta sworn in.
28 The Rajya Sabha returns to the Lok Sabha the Finance Bill for 1977-78 with certain major recommendations
— Home Minister Charan Singh introduces the Lok Pal Bill in the Lok Sabha.

1 White paper on misuse of mass media presented to Parliament.

2 Lok Sabha rejects all the amendments recommended by the Rajya Sabha to the Finance Bill

— The Jaganmohan Reddy Commission holds its first public hearing in New Delhi.

— Govind Narain, former Defence Secretary, sworn in as Governor of Karnataka.

3 The 1977 Ramon Magsaysay award for community leadership announced in favour of Ela Ramesh Bhatt, lawyer, organiser and teacher of self-employed women vendors in western India.

4 The death of Dr. Ram Manohar Lohia in hospital ten years ago to be probed by two doctors.

5 Delhi faced with unprecedented flood situation.

8 A new liberalised passport policy announced in Lok Sabha.

9 Rajya Sabha passes bill to accord statutory recognition to leaders of Opposition in both Houses of Parliament and to give them salary and certain other facilities and amenities. Lok Sabha passed the Bill on 8 August

10 National Film Awards for 1976 announced.

— Shyamlal Parshad, freedom fighter and composer of the famous song "Jhanda Uncha Rahe Hamara" dies at Kanpur.

11 24 Ministers of State added to the Union Council of Ministers.

13 An 11-member group headed by B. G. Varghese set up to study the question of converting Akashvani and Doordarshan into autonomous institutions

— The Committee for Samachar news-agency headed by Kuldip Nayar submits its report.

15 Ten persons including P C Sethi, former Union Minister, and Yashpal Kapoor, MP, arrested on charges of criminal conspiracy to misuse their official positions, corruption and other malpractices.

18 Government announces decision to restore the minimum bonus of 8 33 per cent for the accounting year 1976.

23 Bansi Lal, former Defence Minister, arrested at Bhiwani for alleged embezzlement and misappropriation of Youth Congress funds.

24 London-Sydney rally cars pass through Delhi.

25 Nani Ardeshir Palkhiwala appointed India's ambassador to the United States of America

— The 'Ocean to the Sky' expedition up the Ganges from the Bay of Bengal, led by Sir Edmund Hillary, sets off on its voyage.

27 A 31-member National Board on Adult Education, headed by Union Education Minister, set up to organise the proposed massive programme of eradication of illiteracy during the decade ahead.

September

3 N. G. Goray appointed India's high commissioner in U.K.

4 President N. Sanjiva Reddy leaves for New York for medical treatment.

7 The 1977 Nehru Literacy Award goes to A. R. Deshpande.

10 Planning Commission decides to introduce rolling plan concept.

16 S R Das, former Chief Justice of India, dies at Calcutta.

— Kesarbai Kerkar, renowned exponent of Hindustani classical music, dies at Bombay.

17 Smt. Nandini Satpathy, former Chief Minister of Orissa, arrested and released on bail.

— Prime Minister presents in New Delhi the Bhartiya Jnanpith Award to P V Akilandam "Akilon" for his novel "Chitthirappavai".

19 Ordinance issued repealing the Banking Services Commission Act 1975.
23 Bhagwat Dayal Sharma sworn in as Governor of Orissa.
24 President N. Sanjeeva Reddy returns after medical treatment in USA.
— Harcharan Singh Brar sworn in as Governor of Haryana.
— Jaisukhlal Hathi takes over as Governor of Punjab.
25 Madhya Pradesh Government promulgates an ordinance—The Madhya Pradesh Prevention of Public Disorder (Temporary Powers) Ordinance
26 Uday Shankar, famous exponent of Indian dance, dies at Calcutta.
28 The Union Government decides to withdraw all zonal restrictions on the movement of rice and paddy.
— The Ocean to Sky Expedition led by Sir Edmund Hillary abandoned at Nandprayag
29 Public hearing before the Shah Commission, inquiring into the emergency excesses, begins in New Delhi.
— India and Bangladesh sign in New Delhi a comprehensive agreement on the sharing of the Ganga waters

1 India and Pakistan sign, in Islamabad, an agreement for the continuance of telecommunication links
2 Rural community health service scheme launched.
— Ganapatrao Davaji Tapase sworn in as Governor of Uttar Pradesh.
3 Indira Gandhi arrested in New Delhi by C B. I. on charges of corruption, Also arrested were K. D Malaviya, H. R. Gokhle, D. P. Chattopadhyaya and P. C. Sethi.
4 Indira Gandhi released unconditionally under orders of the Chief Metropolitan Magistrate, Delhi
— Government files petition in Delhi High Court challenging the release order of Indira Gandhi.
— The Shah Commission adjourns till 26 October.
— Lt-General Prem Chand of India appointed UN's special representative for Rhodesia
— External Affairs Minister A B. Vajpayee addresses UN General Assembly in Hindi, the first ever address in this language.
11 Government appoints a study group on wages, incomes and prices under the chairmanship of S Bhoothalingam, former Economic Affairs Secretary.
— The Jaganmohan Reddy Commission starts recording public evidence in New Delhi
12 Prime Minister launches Gujarat Government's Rs 155-crore tribal development scheme in the Surat district.
— The Indian cricket team to tour Australia announced.
— Niranjan Nath Wanchoo sworn in as Governor of Madhya Pradesh.
— Smt Jothi Venkatachellum sworn in as Governor of Kerala.
15 Indian Space Research Organisation successfully launches its first altitude controlled and guided two-stage rocket from the Sriharikota rocket launching range.
17 The fact finding committee appointed by the Union Government in May 1977 to collect facts regarding the Turkman Gate firing submits report
21 Prime Minister Morarji Desai arrives in Moscow on an official visit

23 Kerala Chief Minister A. K. Antony wins bye election to the Kerala assembly from Kazhakootam Constituency.
25 The L. K. Jha Committee on indirect taxes presents first part of its report to the union finance minister.
— Dr. I. G. Patel appointed Governor of the Reserve Bank of India.
26 Prime Minister Morarji Desai and the Soviet President Leonid Brezhnev sign a joint declaration in Moscow.
— Shah Commission resumes public hearing
— Summary of the Capoor Commission report on the Rewasa incidents released in Chandigarh.
27 Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu sign in New Delhi agreement regarding supply of Krishna waters to Madras city.
29 400th anniversary of the founding of Amritsar city. Prime Minister attends the celebrations.

November

2 The Reserve Bank revises value of rupee in relation to pound sterling
3 Bhagwant Rao Mandloi, former Chief Minister of Madhya Pradesh, dies at Khandwa.
4 An Indian Air Force aircraft carrying Prime Minister Morarji Desai, crashlands at Tetalgaon, 23 kms from Jorhat: Five crew members killed.
5 India and Bangladesh formally sign Farakka agreement in Dacca.
— Presidents' rule in Tripura.
6 Jammu and Kashmir promulgates an ordinance to detain persons and put curbs on newspapers and other publications.
— The 24th National Film Festival awards presented. The 'Swarna Kamal' for best feature film of 1976 goes to 'Mrigaya', the best actress of the year award goes to Lakshmi for her performance in the Tamil film 'Sila Nerangalil Sila Manithargal', Mithun Chakraborty gets 'Rajat Kamal' as the best actor in 'Mrigaya', and Kanan Devi gets the Dadasaheb Phalke award
— Tribhuvan Narain Singh sworn in as Governor of West Bengal
8 Summary of the inquiry committee report on the death of Dr. Ram Manohar Lohia in the Willingdon Hospital in Delhi in 1967 released in New Delhi.
— B. N. Reddy, film director and winner of Dadasaheb Phalke Award. dies at Madras.
12 Devastating cyclone hits Tamil Nadu causing heavy loss of life and property.
13 AGRI-EXPO '77 inaugurated in New Delhi
14 Winter Session of Parliament begins.
— Economic policy statement of Janata Party released.
— Report of the Mathew Commission placed before the Rajya Sabha.
— The Minister for Information and Broadcasting Shri L. K Advani announces government's decision favouring break-up of Samachar and revival of the four news agencies which had been merged during the emergency.
15 Government appoints a six-member National Police Commission headed by Dharma Vira
— IBM decides to fold up its operations in India within six months
17 India and the International Atomic Energy Agency sign in Vienna a safeguards agreement that will allow IAEA control of nuclear

material used, processed and produced in the two 400 megawatt reactors of the Rajasthan power station.

18 Privilege motion against Indira Gandhi for obstructing officials from collecting information for a parliamentary question on Maruti, referred to Privileges Committee of Lok Sabha.

— Nagaland goes to polls.

— 250th anniversary celebrations of the founding of Jaipur city inaugurated by the Prime Minister.

19 A cyclonic storm hits Andhra Pradesh causing unprecedented loss of life and property.

21 Shah Commission's proceedings : Indira Gandhi does not attend the hearing, submits a statement, through her Counsel, questioning the procedure adopted by the inquiry commission.

— Nagaland Assembly results announced The United Democratic Front gets absolute majority with 35 seats, followed by Congress 15, Independent 9 and National Convention of Nagaland 1.

— The death toll in cyclone in Andhra Pradesh reaches 10,000 according to one estimate.

23 Train accident near Rewari, 20 persons, including Prakash Vir Shastri, M.P , killed.

— The Society of the Council of Scientific and Industrial Research decides to detach 17 research bodies from the Council and attach them to various ministries

29 India's Michael Ferreira wins the World Billiard Championship at Melbourne

2 Indira Gandhi, in a statement, again expresses inability to appear before the Shah Commission.

4 Prime Minister inaugurates at Ahmedabad the integrated Rural Development Programme of the State Rural Development Council.

6 The interim report of the Jaganmohan Reddy Commission placed before Parliament

— Australia win by 16 runs the first cricket test against India at Brisbane.

8 The Independence Silver Jubilee time capsule outside the Red Fort dug out

9 Prime Minister Morarji Desai arrives in Kathmandu on an official visit to Nepal.

11 In a joint communique issued at the conclusion of the Prime Minister's visit, India and Nepal agree to enlarge and intensify mutual cooperation.

— The Sahitya Akademi awards for 1977 announced.

12 The Lok Sabha passes the Payment of Bonus (Amendment) Bill which provides for the restoration of 8.33 per cent bonus

14 AGRI-EXPO '77 Fair ends.

15 Ashapurna Devi, Bengali novelist, gets the 12th Jnanpith literary award for the novel "Prathama Pratishruti".

— India and Hungary sign in New Delhi an agreement providing for trade in freely convertible currency from the new year, abandoning the 25-year old rupee payment system

16 The A C Gupta Commission holds first sitting in New Delhi.

— The Constitution (Forty-fourth Amendment) Bill seeking to undo some of the changes effected in the Constitution through the 42nd Amendment last year, introduced in the Lok Sabha.

— Roop Singh, hockey player, dies at Gwalior.

— The second cricket test between India and Australia begins at Perth (Australia).
18 Indira Gandhi resigns from the Congress Working Committee.
— Kamaladevi Chattopadhyaya receives the 1977 National UNESCO award in New Delhi.
— Ramesh Krishnan wins the men's singles final of the National Lawn Tennis at Calcutta.
19 President Ziaur Rahman of Bangladesh arrives in New Delhi.
— Justice S. M. Sikri, former Chief Justice of the Supreme Court, heads an inquiry committee to go into railway accidents.
— H R. Khanna, former Supreme Court Judge, appointed Chairman of the Law Commission.
— The UP Chief Minister, Ram Naresh Yadav, wins the Nidhauli Kalan assembly bye-election.
20 The independence silver jubilee time capsule opened.
— Summon issued to Indira Gandhi to appear before the Shah Commission on 9, 10 and 11 January 1978.
— The Bihar Chief Minister Karpoori Thakur wins the Assembly bye-election from Phulparas constituency.
21 Australia win by two wickets the second cricket test against India at Perth.
22 Manipur Chief Minister Yangmacho Shaiza declared elected from the Ukrul Constituency to the State Assembly.
23 The Rajya Sabha unanimously approves the Constitution (Forty-fourth Amendment) Bill. The Lok Sabha had passed the Bill on 20 December.
— Statement on Industrial Policy placed before Parliament.
— A composite Bill to repeal the MISA and simultaneously to provide for preventive detention by including a new chapter in the Criminal Procedure Code, 1973, introduced in the Lok Sabha.
— A Bill seeking to establish a Press Council introduced in the Rajya Sabha.
24 President N. Sanjiva Reddy inaugurates the Conference of State Governors in New Delhi.
25 A. D Mani, journalist and ex-member of the Rajya Sabha, dies at Nagpur.
26 Devraj Urs suspended from the Congress.
27 Seven members, including Kamlapati Tripathi and Mir Qasim, resign from the Congress Working Committee.
— General S. M. Shrinagesh, former Chief of Army Staff, dies in New Delhi.
28 Sumitranandan Pant, noted Hindi writer, dies at Allahabad.
30 The third cricket test match between India and Australia begins at Melbourne (Australia).
— S. A. Dange resigns as Chairman of CPI.
31 Karnataka placed under President's rule The Congress Ministry headed by Devraj Urs dismissed.
— Tripura Assembly poll begins.

# APPENDICES

1 PERSONNEL OF THE GOVERNMENT[1]

*President* . Neelam Sanjiva Reddy
*Vice-President* B D Jatti

| | *Members of the Cabinet* | *Portfolios* |
|---|---|---|
| 1 | Morarji Desai | Prime Minister<br>All Ministries & Departments not specified below |
| 2 | Charan Singh | Home Affairs |
| 3. | Jagjivan Ram | Defence |
| 4 | L K Advani | Information and Broadcasting |
| 5. | H. N Bahuguna | Petroleum and Chemicals & Fertilizers |
| 6 | Sikandar Bakht | Works and Housing and Supply and Rehabilitation |
| 7. | Surjit Singh Barnala | Agriculture and Irrigation |
| 8 | Shanti Bhushan | Law, Justice and Company Affairs |
| 9 | Pratap Chandra Chunder | Education, Social Welfare and Culture |
| 10 | Madhu Dandavate | Railways |
| 11 | Mohan Dharia | Commerce and Civil Supplies and Co-operation |
| 12 | George Fernandes | Industry |
| 13 | Purushottam Kaushik | Tourism and Civil Aviation |
| 14 | Raj Narayan | Health and Family Welfare |
| 15 | H M Patel | Finance |
| 16 | Biju Patnaik | Steel & Mines |
| 17. | P. Ramachandran | Energy |
| 18 | Atal Bihari Vajpayee | External Affairs |
| 19 | Ravindra Varma | Parliamentary Affairs & Labour |
| 20 | Brij Lal Verma | Communications |

| | *Ministers of State* | |
|---|---|---|
| 1 | Satish Agarwal | Finance |
| 2 | Smt' Renuka Devi Barkataki | Education, Social Welfare and Culture |
| 3. | Arif Beg | Commerce, Civil Supplies and Cooperation |
| 4 | Chand Ram[2] | Shipping and Transport |
| 5 | Krishna Kumar Goyal | Commerce, Civil Supplies and Cooperation |
| 6 | Dhanna Singh Gulshan | Education, Social Welfare and Culture |
| 7 | Ram Kinkar | Works and Housing and Supply and Rehabilitation |
| 8 | S Kundu | External Affairs |
| 9 | Kumari Abha Maiti | Industry |
| 10 | Dhanik Lal Mandal | Home Affairs |
| 11 | Janeshwar Mishra | Petroleum and Chemicals and Fertlizers |
| 12 | Karia Munda | Steel and Mines |
| 13 | S D Patil | Home Affairs |
| 14 | Fazlur Rehman | Energy |
| 15 | Larang Sai | Labour and Parliamentary Affairs |
| 16 | Narhari Prasad Sukhdeo Sai | Communications |

1 Appendix to Chapter 3. As on 16 August 1977.
2 Incharge of Ministry/ Department

| | |
|---|---|
| 17. Sheo Narain | Railways |
| 18. Sher Singh | Defence |
| 19. Bhanu Pratap Singh | Agriculture and Irrigation |
| 20 Jagbir Singh | Information and Broadcasting |
| 21. Dr Ram Kirpal Sinha | Labour and Parliamentary Affairs |
| 22 Jagdambi Prasad Yadav | Health and Family Welfare |
| 23. Narsingh Yadav | Law, Justice and Company Affairs |
| 24 Zulfiquarullah | Finance |

## 2. MEMBERS OF PARLIAMENT[1]

### RAJYA SABHA (COUNCIL OF STATES)[2]

*Chairman* . B D. Jatti
*Deputy Chairman* . Ram Niwas Mirdha

**Andhra Pradesh (18)**

1. Janardhana Reddy
2. A. S Chowdhri
3. N. G Ranga
4. Bezawada Papireddi
5 V B Raju
6 Kota Punnaiah
7. Venigalla Satyanarayana
8. N Anandam
9 Kasim Ali Abid
10 V. C Kesava Rao
11. Mohammad Rahamathulla
12. R Narasimha Reddy
13. K L N Prasad
14. Smt Rathnabai Sreenivasa Rao
15. Palavalasa Rajasekharam
16 K. V Raghunatha Reddy
17. M R Krishna
18. Mohammad Yunus Saleem

**Assam (7)**

19 Nripati Ranjan Choudhury
20 B C Bhagawati
21. Nabin Chandra Buragohain
22 Sriman Prafulla Goswami
23 Bipinpal Das
24. Syed Abdul Malik
25 Tilok Gogoi

**Bihar (22)**

26 Dr Ramkripal Sinha
27. Smt Aziza Imam
28 D. P. Singh
29 Kamalnath Jha
30 Dr Chandramanilal Chowdhary
31. Gunanand Thakur
32 Shyam Lal Gupta
33. Zawar Husain
34 Kameshwar Singh
35 Yogendra Sharma
36 Mahendra Mohan Mishra
37. Dharamchand Jain
38. Indradeep Sinha
39. Bhaiya Ram Munda
40 Smt Jahanara Jaipal Singh
41. Bhola Prasad
42 Bhola Paswan Shastri
43 Sitaram Kesri
44 Rajendra Kumar Poddar
45. Ramanand Yadav
46 Bhisma Narain Singh
47 Smt Pratibha Singh

**Gujarat (11)**

48 Yogendra Makwana
49 Smt Sumitra G. Kulkarni
50 Lal K Advani
51 Smt Kumudben Manishanker Joshi
52 Himmat Sinh
53 Harisinh Bhagubava Mahida
54. Ibrahim Kalania
55 Prof Ramlal Parikh
56 H. M Trivedi
57 Viren J Shah
58 Golandaz Mohammedhusain A. Samad

**Haryana (5)**

59. Bansi Lal
60 Ranbir Singh
61 Parbhu Singh
62. Sujan Singh
63. Sultan Singh

**Himachal Pradesh (3)**

64 Roshan Lal

---

1 Appendix to Chapter 3

2. As on 4 October 1977

65 Jagan Nath Bhardwaj
66 Gian Chand Totu

Jammu and Kashmir (4)

67 Om Mehta
68 Syed Mir Qasim
69 Syed Nizam-ud-Din
70 Tirath Ram Amla

Karnataka (12)

71. Veerendra Patil
72 M. L Kollur
73 R M. Desai
74 Mulka Govinda Reddy
75 Smt Margaret Alva
76 L G Havanur
77. L R. Naik
78 U. K Lakshmana Gowda
79. Maqsood Ali Khan
80. K S Malle Gowda
81 F. M Khan
82 T V Chandrashekharappa

Kerala (9)

83 Hamid Ali Schamnad
84 P K Kunjachen
85 Smt Leela Damodara Menon
86 Viswanatha Menon
87. B V Abdulla Koya
88 T Basheer
89 K K Madhavan
90 Pattiam Rajan
91 S Kumaran

Madhya Pradesh (16)

92 P. C Sethi
93 Jagdish Joshi
94 Shrikant Verma
95 Smt Vidyawati Chaturvedi
96 N P Chaudhari
97 Mahendra Bahadur Singh
98 Balram Das
99 Smt Ratan Kumari
100 Smt Maimoona Sultan
101 Bhairon Singh Shekhawat
102 Smt Shyamkumari Devi
103 Gurudev Gupta
104 Sawaisingh Sisodia
105 Shankarlal Tiwari
106 N K Bhatt
107 Baleshwar Dayal

Maharashtra (19)

108 A R Antulay
109 S W Dhabe
110 Deorao Patil
111 S K Vaishampayan
112 Prof N M Kamble
113 R. D. Jagtap Avergoankar
114 Sikander Ali Wajd
115 Vithal Gadgil
116 N H Kumbhare
117. Smt Saroj Khaparde
118 K N Dhulap
119. Smt Sushila Shankar Adivarekar
120 Gulabrao Patil
121 Bapuraoji Marotraoji Deshmukh
122 Jayant Shridhar Tilak
123 Govindrao Ramchandra Mhaiseker
124. D. Y Pawar
125 Vinaykumar Ramlal Parashar
126 Dr M R Vyas

Manipur (1)

127 Irengbam Tompok Singh

Meghalaya (1)

128 Showaless K. Shilla

Nagaland (1)

129 Khyomo Lotha

Orissa (10)

130. Brahmananda Panda
131 Patitpaban Pradhan
132 C P Majhi
133 Narasingha Prasad Nanda
134 Santosh Kumar Sahu
135 Rabi Ray
136 Lakshmana Mahapatro
137 Lokanath Misra
138 Bhairab Chandra Mahanti
139 Smt Saraswati Pradhan

Punjab (7)

140 Mohan Singh
141 Jagjit Singh Anand
142 Smt Amarjit Kaur
143 Sat Paul Mittal
144 Bhupinder Singh
145 Raghbir Singh Gill
146 Smt Ambika Soni

Rajasthan (10)

147. Nathi Singh
148 Smt Lakshmi Kumari Chundawat
149 Smt Ushi Khan
150 Jamna Lal Berwa
151 Swami Dinesh Chandra
152 Mohammed Usman Arif
153 Ram Niwas Mirdha
154. Rishi Kumar Mishra
155 Kishan Lal Sharma
156 Ganesh Lal Mali

**Sikkim (1)**

157 Leonard Soloman Saring

**Tamil Nadu (18)**

158 A K Refaye
159. U. R Krishnan
160. K. A Krishnaswamy
161. Murasoli Maran
162 M Kadershah
163 M Kamlanathan
164 C D Natarajan
165 P. Ramamurti
166 S Ranganathan
167. M. C Balan
168 A P Janardhanam
169 G. K. Moopanar
170 M S Abdul Khader
171 V V Swaminathan
172 Smt Noorjehan Razack
173 G, Lakshmanan
174 E R Krishnan
175 S A Khaja Mohideen

**Tripura (1)**

176 Bir Chandra Deb Barman

**Uttar Pradesh (34)**

177. Dr M M S Siddhu
178 Krishna Nand Joshi
179 Kalp Nath Rai
180 Sukhdev Prasad
181 Jagbir Singh
182 Devendra Nath Dwivedi
183 Piare Lal Kureel *urf* Piare Lall Talib
184 Yashpal Kapur
185 Suresh Narain Mulla
186 Ghayoor Ali Khan
187. Harsh Deo Malaviya
188 Prof S Nurul Hasan
189 Triloki Singh
190 Prakash Veer Shastri
191 Anand Narain Mulla
192 Mahadeo Prasad Varma
193 Mohan Singh Oberoi
194. Nageshwar Prasad Shahi
195 Prakash Mehrotra
196 Bhagwan Din
197. Smt Hamida Habibullah
198. Dinesh Singh
199 Shanti Bhushan
200 Shivdayal Singh Chaurasia
201 Dr V. B Singh
202 Dr Z A Ahmad
203. K. B. Asthana
204 Narendra Singh
205. Prem Manohar
206 Shyam Lal Yadav
207. Bhanu Pratap Singh
208. Sunder Singh Bhandari
209 Kamalapati Tripathi
210 Syed Ahmad Hashmi

**West Bengal (16)**

211 Prasenjit Barman
212 Jaharlal Banerjee
213 Sardar Amjad Ali
214 Dr Rajat Kumar Chakrabarti
215. Anand Pathak
216. Phanindra Nath Hansda
217. Bhupesh Gupta
218 Kalyan Roy
219 Prof D. P. Chattopadhyaya
220 Kali Mukherjee
221 Smt Purabi Mukhopadhyay
222 Sankar Ghose
223 Smt Pratima Bose
224 Sanat Kumar Raha
225 Pranab Mukherjee
226 Ahmad Hossain Mondal

**Arunachal Pradesh (1)**

227 Todak Basar*

**Delhi (3)**

228 Khurshed Alam Khan
229 Smt Savita Behen
230 Charanjit Chanana

**Mizoram (1)**

231 Lalbuaia

**Pondicherry (1)**

232 V P Munusamy

**Nominated by the President (12)**

233 Prof Rasheeduddin Khan
234 C K Daphtary
235 B N Banerjee
236 Bishambhar Nath Pande
237 Pramatha Nath Bisi
238 Dr Lokesh Chandra
239 Smt Maragatham Chandrasekhar
240 Krishna Kripalani
241 Habib Tanvir
242 Abu Abraham
243 Scato Swu
244 Dr V P Dutt

*Nominated by the President

## LOK SABHA (HOUSE OF THE PEOPLE)

(As on 30-9-1977)

*Speaker* · K S Hegde
*Deputy Speaker* . Godey Murahari

| Sl No | Constituency | Name of the Members | Party[1] |
|---|---|---|---|
| | **Andhra Pradesh (42)** | | |
| 1 | Adilabad | G. Narsimha Reddy | Cong |
| 2 | Amalapuram (R) | K. K Murthy | Cong |
| 3 | Anakapalli | S R A S Appalanaidu | Cong |
| 4 | Anantapur | Darur Pullaiah | Cong |
| 5 | Bapatla | P Ankineedu Prasada Rao | Cong |
| 6 | Bhadrachalam (R) | Smt B Radhabai Anandarao | Cong |
| 7. | Bobbili | P V. G Raju | Cong. |
| 8. | Chittoor | P. Rajagopal Naidu | Cong |
| 9 | Cuddapah | K Obul Reddy | Cong |
| 10 | Eluru | K Suryanarayana | Cong |
| 11. | Guntur | K Raghuramaiah | U.A. |
| 12. | Hanamkonda | P V. Narasimha Rao | Cong. |
| 13 | Hindupur | P Bayapa Reddy | Cong |
| 14 | Hyderabad | K S Narayana | Cong |
| 15. | Kakinada | M S Sanjeevi Rao | Cong |
| 16 | Karim Nagar | M Satyanarayana Rao | Cong. |
| 17. | Khammam | Jalagam Kondala Rao | Cong |
| 18. | Kurnool | K Vijaya Bhaskara Reddy | Cong |
| 19. | Machilipatnam | Maganti Ankineedu | Cong. |
| 20 | Mahbubnagar | J. Rameshwara Rao | Cong |
| 21. | Medak | Mallikarjun | Cong |
| 22 | Miryalguda | G S Reddy | Cong |
| 23 | Nagar Kurnool (R) | M Bheeshma Dev | Cong |
| 24. | Nalgonda | Abdul Lateef | Cong |
| 25. | Nandyal | Vacant | Vacant |
| 26 | Narasapur | Subhash Chandra Bose Alluri | Cong |
| 27 | Narasaraopet | K. Brahmananda Reddy | Cong |
| 28 | Nellore (R) | D Kamakshaiah | Cong |
| 29. | Nizambad | M. Ram Gopal Reddy | Cong. |
| 30 | Ongole | P. Venkata Reddy | Cong |
| 31 | Parvathipuram (R) | V Kishore Chandra S Deo | Cong |
| 32 | Peddapalli (R) | V. Tulsiram | Cong |
| 33 | Rajahmundry | Pattabhi Rama Rao | Cong. |
| 34 | Rajampet | Parthasarthi | Cong |
| 35 | Secunderabad | M M Hashim | Cong |
| 36 | Siddipet (R) | G Venkat Swamy | Cong |
| 37. | Srikakulam | Rajagopalarao Boddepalli | Cong. |
| 38 | Tenali | Nageswar Rao Meduri | Cong |
| 39 | Tirupathi (R) | T. Balakrishnaiah | Cong |
| 40 | Vijayawada | Godey Murahari | Cong. |
| 41 | Visakhapatnam | Dronam Raju Satyanarayana | Cong. |
| 42 | Warangal | Vacant | Vacant |

[1]The abbreviations used are · Janata Party (Janata); Congress Party (Cong.); Communist Party of India (Marxist), (CPI)(M), All India Anna Dravida Munnetra Kazhagam (AIADMK); Other Parties . (i) Shiromani Akali Dal (Akali); (ii) Communist Party of India (CPI); (iii) Peasant & Workers Party (P&WP); (iv) Revolutionary Socialist Party (RSP), (v) Forward Bloc (FB); (vi) Muslim League (ML), (vii) Jammu & Kashmir National Conference (NC); (viii) Kerala Congress (KC); (ix) Unattached (UA); Republican Party of India (Khobragade) (RPI)

| Sl No | Constituency | Name of members | Party |
|---|---|---|---|
| | Assam (14) | | |
| 43 | Autonomous Districts (R) | Biren Singh Engti | Cong |
| 44 | Barpeta | Ismail Hossain Khan | Cong |
| 45. | Dhubri | Ahmed Hussain | Cong. |
| 46 | Dibrugarh | Haren Bhumij | Cong. |
| 47. | Gauhati | Smt Renuka Devi Barkataki | Janata |
| 48 | Jorhat | Taurn Gogoi | Cong. |
| 49. | Kaliabor | Bedabrata Barua | Cong. |
| 50. | Karimganj (R) | Nihar Laskar | Cong. |
| 51. | Kokrajhar (R) | Charan Narzany | UA |
| 52 | Lakhimpur | L. K. Doley | Cong. |
| 53. | Mangaldoi | H. L Patwary | Janata |
| 54 | Nowgong | D K. Borooah | Cong. |
| 55 | Silchar | Smt Rashida Haque Chaudhury | Cong |
| 56 | Tezpur | Purna Sinha | Janata |
| | Bihar (54) | | |
| 57. | Araria (R) | Mahendra Narayan Sardar | Janata |
| 58. | Arrah | Chandra Deo Pd Verma | Janata |
| 59. | Aurangabad | Satyendra Narayan Sinha | Janata |
| 60. | Bagaha (R) | Jagannath Prasad Swatantra | Janata |
| 61. | Balia | Ramjiwan Singh | Janata |
| 62 | Banka | Madhu Limaye | Janata |
| 63 | Barh | Shyam Sunder Gupta | Janata |
| 64. | Begusarai | Shyam Nandan Mishra | Janata |
| 65. | Bettiah | F. Rehman | Janata |
| 66 | Bhagalpur | Dr Ramji Singh | Janata |
| 67. | Bikramganj | Ram Awadhesh Singh | Janata |
| 68. | Buxar | Rama Nand Tiwary | Janata |
| 69. | Chapra | Lalu Prasad | Janata |
| 70. | Chatra | Sukhdeo Prasad Verma | Janata |
| 71 | Darbhanga | Surendra Jha Suman' | Janata |
| 72 | Dhanbad | A. K Roy | UA |
| 73. | Dumka(R) | Bateshwar Hemram | Janata |
| 74. | Gaya (R) | Ishwar Chaudhary | Janata |
| 75. | Giridih | Ramdas Singh | Janata |
| 76 | Godda | Jagdambi Prasad Yadav | Janata |
| 77. | Gopalganj | Pandit D. N. Tiwary | Janata |
| 78. | Hajipur (R) | Ram Vilas Paswan | Janata |
| 79 | Hazaribagh | Dr B. N Singh | Janata |
| 80. | Jamshedpur | R P. Sarangi | Janata |
| 81. | Jehanabad | H. L. P. Sinha | Janata |
| 82. | Jhanjharpur | Dhanik Lal Mandal | Janata |
| 83. | Katihar | Yuvraj | Janata |
| 84. | Khagaria | Gyaneshwar Prasad Yadav | Janata |
| 85. | Khunti (R) | Karia Munda | Janata |
| 86. | Kishanganj | Halimuddin Ahmed | Janata |
| 87. | Koderma | R. L. P. Verma | Janata |
| 88. | Lohardaga (R) | Lalu Oraon | Janata |
| 89. | Madhepura | B P. Mandal | Janata |
| 90 | Madhubani | Hukamdeo Narain Yadav | Janata |
| 91. | Maharajganj | Ramdeo Singh | Janata |
| 92. | Monghyr | Shri Krishna Singh | Janata |
| 93 | Moti Hari | Ramapati Singh | Janata |
| 94 | Muzaffarpur | George Fernandes | Janata |
| 95 | Nalanda | Birendra Prasad | Janata |
| 96. | Nawada (R) | Nathuni Ram | Janata |
| 97. | Palamau (R) | R D. Ram | Janata |
| 98. | Patna | M P Sinha | Janata |
| 99. | Purnea | L L. Kapoor | Janata |
| 100. | Rajmahal (R) | Anthony Murmu | Janata |
| 101. | Ranchi | Ravindra Verma | Janata |
| 102 | Rosera (R) | Ram Sewak Hazari | Janata |

| Sl No | Constituency | Name of the Members | Party |
|---|---|---|---|
| 103 | Saharsa | Vinayak Prasad Yadav | Janata |
| 104 | Samastipur | Karpoori Thakur | Janata |
| 105 | Sasaram (R) | Jagjivan Ram | Janata |
| 106 | Sheohar | Thakur Girja Nandan Singh | Janata |
| 107 | Singhbhum (R) | Bagun Sumbrui | UA |
| 108 | Sitamarhi | S S Das | Janata |
| 109. | Siwan | Mrityunjay Prasad | Janata |
| 110 | Vaishali | Digvijay Narain Singh | Janata |
| | **Gujarat (26)** | | |
| 111 | Ahmedabad | Ahsan Jafri | Cong. |
| 112 | Amreli | Dwarkadas Patel | Cong |
| 113 | Anand | Ajitsinh Dabhi | Cong |
| 114. | Banaskantha | Motibhai R Chaudhary | Janata |
| 115 | Baroda | F P. Gaikwad | Cong |
| 116 | Bhavnagar | Prasanna Bhai Mehta | Janata |
| 117 | Broach | Ahmed M Patel | Cong. |
| 118 | Bulsar (R) | Nanubhai N Patel | Janata |
| 119. | Chhota Udaipur (R) | Amarsinh V Rathawa | Cong |
| 120 | Dhandhuka (R) | Natwar Lal Parmar | Janata |
| 121 | Dohad (R) | Somjibhai Damor | Cong |
| 122 | Gandhinagar | P. G Mavalankar | UA |
| 123 | Godhra | Hitendra Desai | Cong. |
| 124 | Jamnagar | Vinod Bhai B Sheth | Janata |
| 125 | Junagadh | Narendra P Nathwani | Janata |
| 126. | Kaira | D D Desai | Cong |
| 127. | Kapadvanj | Shankar Sinhji Vaghela | Janata |
| 128 | Kutch | Anant Dave | Janata |
| 129. | Mandvi (R) | Chhitubhai Gamit | Cong |
| 130 | Mehsana | Km Maniben Vallabhbhai Patel | Janata |
| 131. | Patan (R) | K S Chavda | Janata |
| 132 | Porbandar | Dharamasinh Bhai Patel | Janata |
| 133. | Rajkot | Vacant | Vacant |
| 134 | Sabarkantha | H M Patel | Janata |
| 135 | Surat | Morarji R. Desai | Janata |
| 136 | Surendranagar | R K Amin | Janata |
| | **Haryana (10)** | | |
| 137 | Ambala (R) | Suraj Bhan | Janata |
| 138 | Bhiwani | Smt Chandrawati | Janata |
| 139 | Faridabad | Dharamvir Vashisht | Janata |
| 140 | Hissar | Inder Singh | Janata |
| 141. | Karnal | Vacant | Vacant |
| 142 | Kurukshetra | Sardar Raghbir Singh Virk | Janata |
| 143 | Mahendragarh | Manohar Lal Saini | Janata |
| 144 | Rohtak | Sher Singh | Janata |
| 145. | Sirsa (R) | Chand Ram | Janata |
| 146 | Sonepat | Mukhtiar Singh Malik | Janata |
| | **Himachal Pradesh (4)** | | |
| 147 | Hamirpur | Ranjit Singh | Janata |
| 148 | Kangra | Durga Chand | Janata |
| 149 | Mandi | Ganga Singh | Janata |
| 150 | Simla (R) | Balak Ram | Janata |
| | **Jammu and Kashmir (6)** | | |
| 151 | Anantnag | Mohd Shafi Qureshi | Cong |
| 152 | Baramulla | Abdul Ahad Vahil | NC |
| 153 | Jammu | Baldev Singh Jasrotha | UA |
| 154 | Ladakh | Smt Parvati Devi | Cong |
| 155 | Srinagar | Smt Akbar Jahan Begum | NC |
| 156 | Udhampur | Dr Karan Singh | Cong |

| Sl No. | Constituency | Name of the Members | Party |
|---|---|---|---|
| | **Karnataka (28)** | | |
| 157. | Bagalkot | S B Patil | Cong |
| 158. | Bangalore North | C. K. Jaffer Sharieff | Cong. |
| 159. | Bangalore South | K. S. Hegde[1] | Janata |
| 160. | Belgaum | A. K. Kotrashetti | Cong. |
| 161. | Bellary | K. S. Veerabhadrappa | Cong |
| 162. | Bidar (R) | Shankar Dev | Cong |
| 163. | Bijapur | K. B. Choudhari | Cong. |
| 164 | Chamarajanagar (R) | B Rachaiah | Cong |
| 165. | Chikballapur | M. V Krishnappa | Cong |
| 166. | Chikkodi (R) | B. Shankaranand | Cong. |
| 167 | Chikmagalur | D. B. Chandra Gowda | Cong. |
| 168 | Chitradurga | K. Mallanna | Cong |
| 169. | Davangere | Kondaji Basappa | Cong. |
| 170 | Dharwar North | Dr. Sarojini Mahishi | Cong |
| 171. | Dharwar South | F. H. Mohsin | Cong. |
| 172. | Gulbarga | S. R Reddy | Cong. |
| 173. | Hassan | S. Nanjesha Gowda | Janata |
| 174 | Kanakpura | M. V. Chandrashekara Murthy | Cong |
| 175. | Kanara | B P Kadam | Cong. |
| 176 | Kolar (R) | G. Y. Krishnan | Cong |
| 177 | Koppal | Sidrameshwar Swamy | Cong |
| 178 | Mandya | K Chikkalingiah | Cong. |
| 179· | Mangalore | Janardhana Poojary | Cong |
| 180 | Mysore | Tulsidas Dasappa | Cong |
| 181 | Raichur | Rajshekhar Kolur | Cong. |
| 182 | Shimoga | A R. Badri Narayan | Cong. |
| 183. | Tumkur | K. Lakhappa | Cong |
| 184 | Udipi | T A Pai | Cong |
| | **Kerala (20)** | | |
| 185. | Addor (R) | P K Kodiyan | CPI |
| 186. | Alleppey | V. M Sudheeran | Cong. |
| 187 | Badagara | K. P Unnikrishnan | Cong |
| 188 | Calicut | Dr V. A. Seyid Muhammad | Cong |
| 189 | Cannanore | C. K. Chandrappan | CPI |
| 190 | Chirayinkil | Vayala Ravi | Cong |
| 191. | Ernakulam | Dr Henry Austin | Cong |
| 192 | Idukki | C M Stephen | Cong |
| 193 | Kasaragod | Ramachandran Kadannappalli | Cong |
| 194 | Kottayam | Skariah Thomas | KC |
| 195 | Manjeri | Ebrahim Sulaiman Sait | ML |
| 196 | Mavelikara | B K Nair | Cong |
| 197. | Mukundapuram | A C George | Cong |
| 198 | Muvattu Puzha | George Mathew | K C |
| 199 | Ottapalam (R) | K Kunhambu | Cong |
| 200 | Palghat | A Sunna Sahib | Cong |
| 201 | Ponnaini | G. M Banatwalla | ML |
| 202 | Quilon | N. Sreekantan Nair | RSP |
| 203. | Trichur | K.A Rajan | CPI |
| 204 | Trivandrum | M N Govindan Nair | CPI |
| | **Madhya Pradesh (40)** | | |
| 205 | Balaghat | Kachrulal Hemraj Jain | RPI |
| 206 | Bastar (R) | D P. Shah | Janata |
| 207. | Betul | Subhash Ahuja | Janata |
| 208 | Bhind | Raghubir Singh Machhand | Janata |
| 209 | Bhopal | Arif Beg | Janata |
| 210 | Bilaspur | N P Kesharwani | Janata |

[1]K S Hegde was elected on the Janata ticket but ceased to have any party affiliation after his election as Speaker of the Lok Sabha

| Sl. No. | Constituency | Name of the Members | Party |
|---|---|---|---|
| 211. | Chhindwara | G S. Mishra | Cong |
| 212 | Damoh | Narendra Singh | Janata |
| 213 | Dhar (R) | Bharat Singh Chowhan | Janata |
| 214. | Durg | Mohan Jain | Janata |
| 215 | Guna | Madhavrao Scindia | U.A. |
| 216. | Gwalior | N. K Shejwalkar | Janata |
| 217. | Hoshangabad | Hari Vishnu Kamath | Janata |
| 218 | Indore | Kalyan Jain | Janata |
| 219. | Jabalpur | Sharad Yadav | Janata |
| 220 | Janjgir | Madanlal Shukla | Janata |
| 221. | Jhabua (R) | B Bhanwar | Janata |
| 222 | Kanker (R) | Aghan Singh Thakur | Janata |
| 223 | Khajuraho | Laxmi Narayan Nayak | Janata |
| 224 | Khandwa | Paramanand Govindjiwala | Janata |
| 225. | Khargone | Rameshwar Patidar | Janata |
| 226. | Mahasamund | Brij Lal Verma | Janata |
| 227. | Mandla (R) | Shyamlal Dhurve | Janata |
| 228. | Mandsaur | Dr Laxmit Narayan Pandeya | Janata |
| 229. | Morena (R) | Chhabiram Arghal | Janata |
| 230 | Raigarh (R) | Narhari Prasad Sai | Janata |
| 231. | Raipur | Purushottam Kaushik | Janata |
| 232 | Rajgarh | Dr Vasant Kumar Pandit | Janata |
| 233. | Rajnandgaon | Madan Tiwari | Janata |
| 234. | Rewa | Y. P. Shastri | Janata |
| 235. | Sagar (R) | Narmada Prasad Rai | Janata |
| 236. | Sarangarh (R) | Govindram Miri | Janata |
| 237. | Satna | Sukhendra Singh | Janata |
| 238 | Seoni | Nirmal Chandra Jain | Janata |
| 239 | Shahdol (R) | Dalpat Singh Paraste | Janata |
| 240 | Shajadur (R) | Phool Chand Varma | Janata |
| 241. | Sidhi | Surya Narayan | Janata |
| 242 | Surguja (R) | L. Sai | Janata |
| 243 | Ujjain (R) | Hukkam Chand Kachwai | Janata |
| 244 | Vidisha | Raghavji | Janata |
| | **Maharashtra (48)** | | |
| 245 | Ahmednagar | Annasaheb P. Shinde | Cong |
| 246 | Akola | Vasant Sathe | Cong. |
| 247. | Amravati | Nanasahib Bonde | Cong |
| 248. | Auranbabad | Dr Bapu Kaldaty | Janata |
| 249. | Baramati | Sambhajirao Kakade | Janata |
| 250 | Bhandara | Laxman Rao Mankar | Janata |
| 251. | Bhir | Gangadhar Appa Burande | CPI(M) |
| 252. | Bombay North | Smt Mrinal Gore | Janata |
| 253 | Bombay North Central | Smt Ahilya P. Rangnekar | CPI(M) |
| 254 | Bombay North East | Dr Subramanian Swamy | Janata |
| 255. | Bombay North West | Ram Jethamalani | Janata |
| 256. | Bombay South | Ratansinh Rajda | Janata |
| 257 | Bombay South Central | B C Kamble | Janata |
| 258. | Buldhana (R) | D C. Gawai | RPI |
| 259 | Chandrapur | Raje Vishveshvar Rao | Janata |
| 260. | Chimur | Krishnarao Thakur | Cong. |
| 261. | Dhanu (R) | Lahanu Shidava Kom | CPI(M) |
| 262 | Dhulia | Vijay Kumar N. Patil | Cong. |
| 263. | Erandel | Sonu Singh Patil | Janata |
| 264. | Hingoli | Chandrakant Patil | Janata |
| 265. | Ichalkaranji | Rajaram Shankarrao Mane | Cong. |
| 266 | Jalgaon | Yeshwant Borole | Janata |
| 267 | Jalna | Pundalik Hari Danwe | Janata |
| 268 | Karad | Smt P. Chavan | Cong. |
| 269 | Khed | Annasaheb Magar | Cong. |
| 270 | Kolaba | D B Patil | P. & WP |
| 271. | Kolhapur | Dajiba Desai | P. & WP |
| 272 | Kopargaon | Balasaheb Vikhe Patil | Cong. |

| Sl. No | Constituency | Name of the Members | Party |
|---|---|---|---|
| 273. | Latur | U S Patil | P & WP |
| 274. | Malegaon (R) | Harishankar Mahale | Janata |
| 275. | Nagpur | Gev. M. Awari | Cong |
| 276 | Nanded | Keshavrao Dhondge | P & WP |
| 277 | Nandurbar (R) | S H. Naik | Cong. |
| 278. | Nasik | V. G. Hand | Janata |
| 279 | Osmanabad | T. S. Shrangare | Cong. |
| 280. | Pandharpur | Bhausaheb Thorat | Cong. |
| 281 | Parbhani | Sheshrao Deshmukh | P & WP |
| 282. | Poona | Mohan Dharia | Janata |
| 283. | Rajapur | Madhu Dandvate | Janata |
| 284 | Ramtek | J C. Barve | Cong |
| 285 | Ratnagiri | Bapusaheb Perulekar | Janata |
| 286. | Sangli | Annasaheb Gotkhinde | Cong |
| 287. | Satara | Y. B. Chavan | Cong |
| 288 | Sholapur | S. R Damani | Cong. |
| 289 | Thana | R. K. Mhalgi | Janata |
| 290. | Wardha | Santoshrao Gode | Cong |
| 291. | Washim | V. P. Naik | Cong. |
| 292. | Yeotmal | Sridhar Rao Nathobaji Jawade | Cong |
| | **Manipur (2)** | | |
| 293. | Inner Manipur | N Tombi Singh | Cong |
| 294 | Outer Manipur (R) | Y Shaiza | ? |
| | **Meghalaya (2)** | | |
| 295 | Shillong | Hoping Stone Lyngdoh | UA |
| 296 | Ture | P A. Sangma | Cong |
| | **Nagaland (1)** | | |
| 297 | Nagaland | Smt Rano M Shaiza | |
| | **Orissa (21)** | | |
| 298 | Aska | Ramchandra Rath | Cong |
| 299. | Balasore | S Kundu | Janata |
| 300 | Berhampur | Jagnnath Rao | Cong |
| 301. | Bhadrak (R) | Jena Bairagi | Janata |
| 302 | Bhubaneswar | Sivaji Patnaik | CPI(M) |
| 303. | Bolangir | Aintho Saheo | Janata |
| 304 | Cuttack | Sarat Kar | Janata |
| 305. | Deogarh | Pabitra Mohan Pradhan | Janata |
| 306 | Dhenkanal | Devendra Satpathy | Janata |
| 307 | Jagatsinghpur | Pradhyumna Bal | Janata |
| 308 | Jajpur | Ramchandra Mallick | Janata |
| 309. | Kalahandi | P K. Deo | UA. |
| 310 | Kendrapara | Biju Patnaik | Janata |
| 311. | Keonjhar (R) | Govind Munda | Janata |
| 312 | Koraput (R) | Giridhar Gomango | Cong. |
| 313 | Mayurbhanj (R) | C. M. Sinha | Janata |
| 314 | Nowrangpur (R) | K Pradhani | Cong |
| 315. | Phulbani (R) | Sribatcha Digal | Janata |
| 316 | Puri | Padamacharana Samantasinhera | Janata |
| 317 | Sambalpur | Gananath Pradhan | Janata |
| 318 | Sundargarh (R) | D. Amat | Janata |
| | **Punjab (13)** | | |
| 319 | Amritsar | Dr Baldev Prakash | Janata |
| 329 | Bhatinda (R) | Dhanna Singh Gulshan | Akali |
| 321 | Faridkot | Vacant | Vacant |
| 322 | Firozepur | Mohinder Singh Sayian Wala | Akali |
| 323 | Gurdaspur | Yagya Datt Sharma | Janata |

| Sl. No. | Constituency | Name of the Members | Party |
|---|---|---|---|
| 324. | Hoshiarpur | Chowdhry Balbir Singh | Janata |
| 325. | Jullundur | Iqbal Singh Dhillon | Akali |
| 326 | Ludhiana | Jagdev Singh Talwandi | Akali |
| 327. | Patiala | G S Tohra | Akali |
| 328 | Phillaur (R) | Bhagat Ram | CPI(M) |
| 329 | Ropar (R) | Basant Singh Khosla | Akali |
| 330 | Sangrur | Surjit Singh Barnala | Akali |
| 331. | Taran Taran | Mohan Singh Tur | Akali |
| | **Rajasthan (25)** | | |
| 332 | Ajmer | S K Sarda | Janata |
| 333 | Alwar | Ramjilal Yadav | Janata |
| 334 | Banswara (R) | Heera Bhai | Janata |
| 335 | Barmer | Tan Singh | Janata |
| 336 | Bayana (R) | S S Lal | Janata |
| 337. | Bharatpur | Ram Kishan | Janata |
| 338 | Bhilwara | Rooplal Somani | Janata |
| 339 | Bikaner | Chaudhary Hari Ram Makkasar Godara | Janata |
| 340. | Chittorgarh | S S. Somani | Janata |
| 341. | Churu | Daulat Ram Saran | Janata |
| 342 | Dausa | Nathu Singh | Janata |
| 343. | Ganganagar (R) | Bega Ram Chauhan | Janata |
| 344 | Jaipur | Satish Agarwal | Janata |
| 345 | Jalore | Hukum Ram | Janata |
| 346 | Jhalawar | Chaturbhuj | Janata |
| 347 | Jhunjhunu | K L Mahala | Janata |
| 348 | Jodhpur | R D. Gattani | Janata |
| 349 | Kota | Krishna Kumar Goyal | Janata |
| 350 | Nagaur | Nathuram Mirdha | Cong |
| 351. | Pali | Amrit Nahata | Janata |
| 352 | Salumber (R) | Lalji Bhai | Janata |
| 353. | Sawai Madhopur (R) | Meethalal Patel | Janata |
| 354 | Sikar | Jagdish Prasad Mathur | Janata |
| 355 | Tonk (R) | Ram Kanwar Berwa | Janata |
| 356 | Udaipur | Bhanu Kumar Shastri | Janata |
| | **Sikkim (1)** | | |
| 357 | Sikkim | Chhatra Bahadur Chhetri | |
| | **Tamil Nadu (39)** | | |
| 358 | Arkonam | O V Alagesan | Cong |
| 359 | Chinglepattu | Ragavalu Mohanrangam | AIADMK |
| 360 | Chidambaram (R) | A Murugesan | AIADMK |
| 361. | Coimbatore | Smt Parvathikrishnan | CPI |
| 362 | Cuddalore | G Bhuvarahan | Cong |
| 363 | Dharamapuri | K Ramamurthy | Cong |
| 364 | Dindigul | K Mayathevar | AIADMK |
| 365 | Gobichettipalayam | K S. Ramaswamy | Cong |
| 366 | Karur | K Gopal | Cong |
| 367. | Krishnagiri | P V. Beriasamy | AIADMK |
| 368 | Madras Central | P Ramachandran | Janata |
| 369 | Madras North | A V P Asaithambi | UA |
| 370 | Madras South | R Venkatraman | Cong |
| 371 | Madurai | R V Swaminathan | Cong |
| 372 | Mayuram | N Kudanthai Ramalingam | Cong |
| 373 | Nagapattinam (R) | S G Murugaiyan | CPI |
| 374 | Nagercoil | Kumari Ananthan | Janata |
| 375 | Nilgiris | P S Ramalingam | AIADMK |
| 376 | Palani | C Subramaniam | Cong |
| 377. | Perambalur (R) | A Asokaraj | AIADMK |
| 378 | Periyakulam | S Ramasam | AIADMK |
| 379 | Pollachi (R) | K A Raju | AIADMK |

| Sl. No. | Constituency | Name of the Members | Party |
|---|---|---|---|
| 380. | Pudukkottai | V. S. Elanchezhian | AIADMK |
| 381. | Ramanathapuram | P. Anbalagan | AIADMK |
| 382. | Rasipuram (R) | B. Devarajan | Cong. |
| 383. | Salem | P. Kannan | AIADMK |
| 384. | Sivaganga | P. Thiagarajan | AIADMK |
| 385. | Sivakasi | Smt V. Jeyalakshmi | Cong. |
| 386. | Sriperambudur (R) | S. Jagannathan | AIADMK |
| 387. | Tenkasi (R) | M. Arunachalam | Cong. |
| 388. | Thanjavur | S D. Somasundaram | AIADMK |
| 389. | Tindivanam | M. R. Lakshminarayanan | Cong. |
| 390. | Tiruchendur | K. T. Kosalram | Cong. |
| 391. | Tiruchengode | R. Kolanthaivelu | AIADMK |
| 392. | Tiruchirapalli | M. Kalyanasundaram | CPI |
| 393. | Tirunelveli | V. Arunachalam | AIADMK |
| 394. | Tiruppattur | C. N. Visvanathan | AIADMK |
| 395. | Vellore | V. Dhandayauthapani | Janata |
| 396. | Wandiwash | C. Venugopal | AIADMK |
| | **Tripura (2)** | | |
| 397. | Tripura East (R) | Kirit Dikram Deb Burman | Cong |
| 398. | Tripura West | Sachinralal Singha | Janata |
| | **Uttar Pradesh (85)** | | |
| 399. | Agra | Shambu Nath Chaturvedi | Janata |
| 400. | Akbarpur (R) | Mangal Deo | Janata |
| 401. | Aligarh | Nawab Singh Chauhan | Janata |
| 402. | Allahabad | Janeshwar Mishra | Janata |
| 403. | Almora | Dr Murli Manohar Joshi | Janata |
| 404. | Amethi | Ravindra Pratap Singh | Janata |
| 405. | Amroha | Chandrapal Singh | Janata |
| 406. | Aonla | Brij Raj Singh | Janata |
| 407. | Azamgarh | Ram Naresh Yadav | Janata |
| 408. | Baghpat | Charan Singh | Janata |
| 409. | Bahraich | O. P. Tyagi | Janata |
| 410. | Ballia | Chandra Shekhar | Janata |
| 411. | Balrampur | Nanaji Deshmukh | Janata |
| 412. | Banda | Ambika Prasad Pandey | Janata |
| 413. | Bansgaon (R) | Phirangi Prasad | Janata |
| 414. | Bara Banki (R) | Ram Kinkar | Janata |
| 415. | Bareilly | Ram Murti | Janata |
| 416. | Basti (R) | Sheo Narain | Janata |
| 417. | Bijnor (R) | Mahi Lal | Janata |
| 418. | Bilhaur | Chaudhry Ram Gopal Singh | Janata |
| 419. | Badaun | Onkar Singh | Janata |
| 420. | Bulandshahr | Mohmood Hasan Khan | Janata |
| 421. | Chail (R) | R.N. Rakesh | Janata |
| 422. | Chandauli | Narsingh Yadav | Janata |
| 423. | Deoria | Ugrasen | Janata |
| 424. | Domariaganj | Madhav Prasad Tripathi | Janata |
| 425. | Etah | Dr Mahadeepak Singh Shakya | Janata |
| 426. | Etawah | Arjun Singh Bhadoria | Janata |
| 427. | Faizabad | Anant Ram Jaiswal | Janata |
| 428. | Farrakhabad | Daya Ram Shakya | Janata |
| 429. | Fatehpur | Bashir Ahmed | Janata |
| 430. | Firozabad (R) | Ramji Lal Suman | Janata |
| 431. | Garhwal | Jagannath Sharma | Janata |
| 432. | Ghatampur (R) | Jwala Prasad Kureel | Janata |
| 433. | Ghazipur | Gauri Shanker Rai | Janata |
| 434. | Ghosi | Shiv Ram | Janata |
| 435. | Gonda | Satya Deo Singh | Janata |
| 436. | Gorakhpur | Harikesh Bahadur | Janata |
| 437. | Hamirpur | Tej Pratap Singh | Janata |
| 438. | Hapur | Kunwar Mahmud Ali Khan | Janata |
| 439. | Hardoi (R) | Parmai Lal | Janata |

| Sl No. | Constituency | Name of the Members | Party |
|---|---|---|---|
| 440. | Hardwar (R) | Dr Bhagwan Das Rathor | Janata |
| 441. | Hathras (R) | Ram Prasad Deshmukh | Janata |
| 442 | Jalaun (R) | Ram Charan | Janata |
| 443. | Jalesar | Choudhary Multan Singh | Janata |
| 444. | Jaunpur | Yadvendra Dutt | Janata |
| 445 | Jhansi | Dr Sushila Nayar | Janata |
| 446. | Kairana | Chandan Singh | Janata |
| 447. | Kaiserganj | Rudra Sen Choudhary | Janata |
| 448 | Kannauj | Ram Prakash Tripathi | Janata |
| 449. | Kanpur | Manohar Lal | Janata |
| 450 | Khalilabad | Brij Bhushan Tiwari | Janata |
| 451 | Kheri | Surath Bahadur Shah | Janata |
| 452 | Khurja (R) | Mohan Lal Pipil | Janata |
| 453. | Lalganj (R) | Ram Dhan | Janata |
| 454. | Lucknow | H N Bahuguna | Janata |
| 455 | Machhlishahr | Raj Keshar Singh | Janata |
| 456 | Maharajganj | Shibban Lal Saksena | Janata |
| 457. | Mainpuri | Raghunath Singh Verma | Janata |
| 458. | Mathura | Mani Ram Bagri | Janata |
| 459. | Meerut | K Prakash | Janata |
| 460. | Mirzapur | Faquir Ali Ansari | Janata |
| 461. | Misrikh (R) | Ram Lal Rahi | Janata |
| 462 | Mohan Lal Ganj (R) | R L Kureel | Janata |
| 463. | Moradabad | Gulam Mohammad Khan | Janata |
| 464 | Muzaffarnagar | Sayeed Murtza | Janata |
| 465. | Nainital | Bharat Bhushan | Janata |
| 466 | Padrauna | Ram Dhari Shastri | Janata |
| 467 | Phulpur | Smt Kamla Bahuguna | Janata |
| 468 | Pilibhit | Mohd Shamlal Hasan Khan | Janata |
| 469. | Pratapgarh | Roop Nath Singh Yadav | Janata |
| 470 | Rae Bareili | Raj Narain | Janata |
| 471. | Rampur | Rajendra Kumar Sharma | Janata |
| 472 | Roberts Ganj (R) | Shiv Sampati Ram | Janata |
| 473 | Saharanpur | Rasheed Masood | Janata |
| 474 | Saidpur (R) | Ram Sagar | Janata |
| 475. | Salempur | Ram Naresh Kushwaha | Janata |
| 476 | Sambhal | Smt Shanti Devi | Janata |
| 477. | Shahabad | Ganga Bhakt Singh | Janata |
| 478. | Shahjahanpur | Surendra Bikram | Janata |
| 479 | Sitapur | Hargovind Verma | Janata |
| 480 | Sultanpur | Zulfiquarullah | Janata |
| 481. | Tehri Garhwal | T. S Negi | Janata |
| 482. | Unnao | Raghvendra Singh | Janata |
| 483. | Varanasi | Chandra Shekhar Singh | Janata |
| | **West Bengal (42)** | | |
| 484 | Alipurduars | Pius Tirkey | RSP |
| 485 | Arambagh | Prafulla Chandra Sen | Janata |
| 486 | Asansol | Robin Sen | CPI (M) |
| 487. | Balurghat (R) | Palas Barman | RSP |
| 488. | Bankura | Dr Bijay Mondal | Janata |
| 489. | Barasat | Chitta Basu | FB |
| 490 | Barrackpore | Saugata Roy | Cong. |
| 491. | Basirhat | M. A. Hannan Alhaj | Janata |
| 492 | Berhampore | Tridib Chaudhuri | RSP |
| 493 | Birbhum | Gadadhar Saha | CPI (M) |
| 494. | Bolpur | Dr Saradish Roy | CPI (M) |
| 495 | Burdwan | Raj Krishna Dawn | Janata |
| 496. | Calcutta North East | Dr P. C. Chunder | Janata |
| 497 | Calcutta North West | Bijoy Singh Nahar | Janata |
| 498 | Calcutta South | Dilip Chakravarty | Janata |
| 499 | Contai | Samar Guha | Janata |
| 500 | Cooch Behar (R) | Amar Roy Pradhan | FB |
| 501. | Darjeeling | K. B Chettri | Cong. |
| 502. | Diamond Harbour | Jyotirmoy Bosu | CPI (M) |

| Sl No. | Constituency | Name of the Members | Party |
|---|---|---|---|
| 503. | Dum Dum | Asoka Krishna Dutt | Janata |
| 504. | Durgapur (R) | Krishna Chandra Halder | CPI (M) |
| 505. | Hooghly | Bijoy Modak | CPI (M) |
| 506. | Howrah | Samar Mukherjee | CPI )M) |
| 507. | Jadavpur | Somnath Chatterjee | CPI (M) |
| 508. | Jalpaiguri | K. N Dasgupta | * |
| 509 | Jangipur | Sasankasekhar Sanyal | CPI (M) |
| 510 | Jhargram (R) | Jadunath Kisku | CPI (M) |
| 511 | Joynagar (R) | Sakti Kumar Sarkar | Janata |
| 512. | Katwa | Dhirendra Nath Basu | Cong. |
| 513. | Krishnagar | R P. Das | CPI (M) |
| 514 | Malda | Dinesh Joarder | CPI (M) |
| 515 | Mathurapur (R) | Mukunda Mandal | CPI (M) |
| 516. | Midnapore | Sudhir Ghosal | Janata |
| 517 | Murshidabad | Syed Kazim Ali Meerza | Janata |
| 518 | Nabadwip (R) | S r t Bibha Ghosh Goswami | CPI (M) |
| 519 | Panskura | Km Abha Maiti | Janata |
| 520. | Purulia | C R Mahata | FB |
| 521 | Raiganj | Mohd Hayat Ali | Janata |
| 522 | Serampore | Dinendra Nath Bhattacharya | CPI (M) |
| 523. | Tamluk | Sushil Kumar Dhara | Janata |
| 524 | Uluberia | Shyamaprasanna Bhattacharya | CPI (M) |
| 525. | Vishnupur (R) | A K. Saha | CPI (M) |
| | **Union Territories** | | |
| | **Andaman and Nicobar Islands (1)** | | |
| 526 | Andaman & Nicobar Islands | Manoranjan Bhakta | Cong. |
| | **Arunachal Pradesh (2)** | | |
| 527 | Arunachal East | Bakin Pertin | |
| 528. | Arunachal West | Rinching Khandu Khrime | |
| | **Chandigarh (1)** | | |
| 529. | Chandigarh | Krishan Kant | Janata |
| | **Dadra Nagar Haveli (1)** | | |
| 530 | Dadra & Nagar Haveli | R R. Patel | UA |
| | **Delhi (7)** | | |
| 531. | East Delhi | Kishore Lal | Janata |
| 532. | Chandni Chowk | Sikander Bakht | Janata |
| 533 | Delhi Sadar | Kanwar Lal Gupta | Janata |
| 534 | Karol Bagh (R) | Shiv Narian Sarsonia | Janata |
| 535. | New Delhi | Atal Bihari Vajpayee | Janata |
| 536. | Outer Delhi | Chaudhury Brahm Parkash | Janata |
| 537. | South Delhi | Vijay Kumar Malhotra | Janata |
| | **Goa, Daman and Diu (2)** | | |
| 538 | Mormugao | Eduardo Falerio | Cong. |
| 539 | Panaji | Amrut Kasar | UA |
| | **Lakshadweep (1)** | | |
| 540. | Lakshadweep | P.M Sayeed | Cong. |
| | **Mizoram (1)** | | |
| 541. | Mizoram | Dr R Rothuama | UA |

| Sl No. | Constituency | Name of the Members | Party |
|---|---|---|---|
| | **Pondicherry (1)** | | |
| 542 | Pondicherry | A Bala Pajanor | AIADMK |
| | **Anglo Indians (2)**[1] | | |
| 543. | — | A E T Barrow | UA |
| 544 | — | Rudolph Rodrigues | * |

## 3 GALLANTRY AWARDS 1976

| | |
|---|---|
| **Param Vir Chakra** | The highest decoration for valour, the Param Vir Chakra, is awarded for the most conspicuous bravery of some daring or pre-eminent act or valour or self-sacrifice in the presence of the enemy, whether on land, at sea or in the air. |
| *Recipient* | None |
| **Maha Vir Chakra** | The Maha Vir Chakra, the second highest decoration, is awarded for acts or conspicuous gallantry in the presence of enemy, whether on land, at sea or in the air |
| *Recipient* | None |
| **Vir Chakra** | The Vir Chakra is third in the order of awards given for acts of gallantry in the presence of the enemy, whether on land, at sea or in the air |
| *Recipient* | None |
| **Ashok Chakra** | This medal is awarded for the most conspicious bravery or some daring or pre-eminent act of valour or self-sacrifice on land, at sea or in the air. |
| *Recipient* | None |
| **Kirti Chakra** | This decoration is awarded for conspicuous gallantry |
| *Recipients* | 3 |
| **Shaurya Chakra** | This decoration is awarded for an act of gallantry. |
| *Recipients* | 25 |
| **Sena Medal** | 9 |
| **Bar to Nao Sena Medal** | 2 |
| **Nao Sena Medal** | 13 |
| **Vayu Sena Medal** | 27 |

## GALLANTRY AWARDS 1977[2]

| | |
|---|---|
| **Param Vir Chakra** | The highest decoration for valour, the Param Vir Chakra, is awarded for the most conspicuous bravery of some daring or pre-eminent act of valour of self-sacrifice in the presence of the enemy, whether on land, at sea or in the air |
| *Recipient* | None |
| **Maha Vir Chakra** | The Maha Vir Chakra, the second highest decoration, is awarded for acts of conspicuous gallantry in the presence of enemy, whether on land, at sea or in the air |
| *Recipient* | None |

[1]Nominated by the President
[2]As on 31 August 1977

| | |
|---|---|
| Vir Chakra | The Vir Chakra is third in the order of awards given for acts of gallantry in the presence of the enemy, whether on land, at sea or in the air. |
| *Recipient* | None |
| Ashok Chakra | This medal is awarded for the most conspicuous bravery or some daring or pre-eminent act of valour or self-sacrifice on land, at sea or in the air. |
| *Recipient* | None |
| Kirti Chakra | This decoration is awarded for conspicuous gallantry |
| *Recipient* | None |
| Shaurya Chakra | This decoration is awarded for an act of gallantry. |
| *Recipients* | 10 |
| Sena Medal | 22 |
| Nao Sena Medal | 10 |
| Vayu Sena Medal | 6 |

**4 DISTINGUISHED SERVICE AWARDS 1976**

| | |
|---|---|
| Param Vishisht Seva Medal | The Param Vishisht Seva Medal is awarded to personnel of all the three Services in recognition of distinguished service of the 'most exceptional' order. |
| *Recipients* | 22 |
| Ati Vishisht Seva Medal | The Ati Vishisht Seva Medal is awarded to personnel of all the three Services in recognition of distinguished service of 'exceptional' order, |
| *Recipients* | 49 |
| Bar to AVASM | 1 |
| Vishisht Seva Medal | The Vishisht Seva Medal is awarded to personnel of all the three services in recognition of distinguished service. |
| *Recipients* | 74 |
| Bar to VSM | 1 |

**DISTINGUISHED SERVICE AWARDS 1977**

| | |
|---|---|
| Param Vishisht Seva Medal | The Param Vishisht Seva Medal is awarded to personnel of all the three Services in recognition of distinguished service of the most 'exceptional' order. |
| *Recipients* | 18 |
| Ati Vishisht Seva Medal | The Ati Vishisht Seva Medal is awarded to personnel of all the three Services in recognition of distinguished service of 'exceptional' order. |
| *Recipients* | 30 |
| Vishisht Seva Medal | The Vishisht Seva Medal is awarded to personnel of all three Services in recognition of distinguished service. |
| *Recipients* | 68 |
| Bar to VSM | 1 |

## 5 UNIVERSITIES IN INDIA[1]

*As on 30 September* 1975

| Name, Location and Year of Establishment | Type | Number of Colleges (as on 31 March 76) | NUMBER OF STUDENTS: University Deptts/ University Colleges (Excluding PUC, PP & Inter) | NUMBER OF STUDENTS: Affiliated Colleges (Excluding, PUC, PP, & Inter) | NUMBER OF STUDENTS: Pre-University, Intermediate and Pre-professional Courses |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1. Agra University, Agra (1926) | Affiliating | 41 | 470 | 40,250 | — |
| 2 Aligarh Muslim University, Aligarh (1920) | Unitary | 4 | 9,596 | — | 1,419 |
| 3. Allahabad University, Allahabad (1887) | Unitary | 11 | 11,331 | 10,422 | — |
| 4 Andhra University, Waltair (1925) | Affiliating | 136 | 5,809 | 57,173 | 37,808 |
| 5. Andhra Pradesh Agricultural University, Hyderabad (1963) | Unitary | 6 | 2,300 | — | — |
| 6. Annamalai University, Annamalainagar (1928) | Unitary | — | 5,746 | — | 696 |
| 7 Assam Agricultural University, Jorhat (1968) | Unitary | 3 | 751 | — | — |
| 8. Avadh University, Faizabad (1975) | Affiliating | 24 | — | 17,197 | — |
| 9. Awadesh Pratap Singh University, Rewa (1968) | Affiliating | 46 | — | 15,388 | — |
| 10 Banaras Hindu University, Varanasi (1915) | Unitary | 5 | 11,917 | 2,671 | 1,382 |
| 11. Bangalore University, Bangalore (1964) | Affiliating | 86 | 4,343 | 41,958 | 25,534 |
| 12 Berhampur University, Berhampur (1966) | Affiliating | 19 | 401 | 5,492 | 5,718 |
| 13 Bhagalpur University, Bhagalpur (1960) | Affiliating | 43 | 7,082 | 3,528 | 17,369 |
| 14 Bhopal University, Bhopal (1970) | Affiliating | 25 | 95 | 16,386 | — |
| 15 Bidhan Chandra Krishi Vishwavidyalaya Kalyani (1974) | Unitary | — | 1,097 | — | — |
| 16. Bihar University, Muzaffarpur (1952) | Affiliating | 65 | 9,784 | 7,009 | 25,711 |
| 17. Bombay University, Bombay (1857) | Federal | 113 | 4,769 | 69,102 | 80,169 |
| 18 Bundelkhand University (Jhansi) (1975) | Affiliating | 13 | — | 9,708 | — |
| 19. Burdwan University, Burdwan (1959) | Affiliating | 56 | 2,125 | 56,502 | 8,680 |
| 20. Calcutta University, Calcutta (1857) | Affiliating | 223 | 15,560 | 2,18,376 | 36,816 |
| 21. Calicut University, Calicut (1968) | Affiliating | 70 | 387 | 26,856 | 33,613 |
| 22. Cochin University, Cochin (1971) | Federal | — | 283 | — | — |
| 23. Chandra Sekhar Azad University of Agri & Technology, Kanpur (1974) | Unitary | 2 | 718 | — | — |
| 24 Delhi University, Delhi (1922) | Affiliating | 66 | 19,645 | 58,861 | — |
| 25 Dibrugarh University, Dibrugarh (1965) | Affiliating | 50 | 658 | 10,973 | 19,888 |
| 26. Garhwal University, Srinagar (Garhwal) (1973) | Affiliating | 16 | 1,169 | 08,777 | — |
| 27. Gauhati University, Gauhati (1947) | Affiliating | 118 | 2,928 | 26,212 | 45,922 |
| 28. G B. Pant University of Agriculture & Technology, Pantnagar (1958) | Unitary | 6 | 2,178 | — | — |
| 29 Gorakhpur University, Gorakhpur (1956) | Affiliating | 93 | 5,278 | 53,430 | — |
| 30. Gujarat University, Ahmadabad (1949) | Affiliating | 147 | 1,623 | 80,986 | 37,926 |
| 31. Gujarat Agricultural University, Ahmadabad (1972) | Unitary | 5 | 1,818 | — | — |
| 32. Gujarat Ayurveda University, Jamnagar (1965) | Affiliating | 11 | 287 | 1,905 | — |

[1]Appendix to Chapter 5

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| 33. Guru Nanak Dev University, Amritsar (1969) | Affiliating | 73 | 1,330 | 33,156 | 15,588 |
| 34. Haryana Agricultural University, Hissar (1970) | Unitary | 7 | 1,536 | — | — |
| 35. Himachal Pradesh University, Simla (1970) | Affiliating | 33 | 1,998 | 9,951 | 3,484 |
| 36. Hyderabad University, Hyderabad (1974) | Unitary | — | 47 | — | — |
| 37. Indira Kala Sangeet University, Khairagarh (1956) | Affiliating | 30 | 82 | 212 | 838 |
| 38. Indore University, Indore (1964) | Federal | 20 | 371 | 16,462 | 11 |
| 39. Jabalpur University, Jabalpur (1956) | Affiliating | 28 | 913 | 16,480 | — |
| 40. Jadavpur University, Calcutta (1955) | Unitary With Affiliating Powers | 2 | 4,321 | 472 | — |
| 41. Jammu University, Jammu (1969) | Affiliating | 15 | 1,510 | 6,758 | 2,105 |
| 42. Jawaharlal Nehru University, Delhi (1966) | Unitary | — | 2,039 | — | — |
| 43. Jawaharlal Nehru Krishi Vishwavidyalaya Jabalpur (1964) | Unitary | 9 | 2,181 | — | — |
| 44. Jawaharlal Nehru Technological Institute, Hyderabad (1972) | Unitary | 5 | 3,305 | — | — |
| 45. Jiwaji University, Gwalior (1963) | Affiliating | 40 | 99 | 20,986 | — |
| 46. Jodhpur University, Jodhpur (1962) | Unitary | 3 | 9,198 | 1,243 | — |
| 47. Kalyani University, Kalyani (1960) | Affiliating | 3 | 1,267 | 572 | 256 |
| 48. K.S. Darbhanga Sanskrit Vishwavidyalaya Darbhanga (1960) | Affiliating | 48 | — | 2,050 | 317 |
| 49. Kanpur University, Kanpur (1965) | Affiliating | 71 | — | 50,608 | — |
| 50. Karnatak University, Dharwar (1950) | Affiliating | 135 | 5,925 | 35,554 | 30,726 |
| 51. Kashi Vidyapith, Varanasi (1974)* | Unitary | — | 2,002 | — | — |
| 52. Kashmir University, Srinagar (1948) | Affiliating | 22 | 925 | 11,545 | 4,837 |
| 53. Kerala University, Trivandrum (1937) | Affiliating | 104 | 878 | 49,831 | 66,533 |
| 54. Kerala Agricultural University, Trichur (1971) | Unitary | 3 | 619 | — | — |
| 55. Konkan Krishi Vidyapith, Dapoli (1972) | Unitary | 2 | 542 | — | — |
| 56. Kumaon University, Nainital (1973) | Affiliating | 11 | 3,172 | 2,576 | — |
| 57. Kurukshetra University, Kurukshetra (1956) | Affiliating | 122 | 4,986 | 52,043 | 24,611 |
| 58. Lalith Narayan Mithila University, Darbhanga (1972) | Affiliating | 66 | 7,193 | 5,077 | 23,439 |
| 59. Lucknow University, Lucknow (1921) | Unitary | 22 | 14 001 | 15,092 | — |
| 60. Madras University, Madras (1857) | Affiliating | 166 | 1,893 | 1,04,691 | 51,611 |
| 61. Madurai University, Madurai (1965) | Affiliating | 102 | 610 | 47,640 | 22,338 |
| 62. Magadh University, Bodhgaya (1962) | Affiliating | 56 | 13,556 | 8,950 | 34,041 |
| 63. M.S. University of Baroda, Vadodra (1949) | Unitary | 1 | 17,736 | — | 3,969 |
| 64. Mahatma Phule Krishi Vidyapith, Rahuri (1967) | Federal | 5 | 1,826 | — | — |
| 65. Marathwada University, Aurangabad (1958) | Affiliating | 84 | 3,749 | 42,044 | 17,379 |
| 66. Marathwada Krishi Vidyapith, Parbhani (1972 | Unitary | 2 | 1,160 | — | — |
| 67. Meerut University, Meerut (1965) | Affiliating | 54 | 145 | 50,636 | — |
| 68. Mysore University, Mysore (1916) | Affiliating | 121 | 5,141 | 45,365 | 25,948 |
| 69. Nagpur University, Nagpur (1923) | Affiliating | 140 | 4,390 | 55,837 | 20,357 |
| 70. Narendra Deo University of Agriculture & Technology, Faizabad (1974) | Unitary | — | — | — | — |
| 71. North Bengal University, Raja Ram Mohanpur, (Darjeeling) (1962) | Affiliating | 33 | 2,791 | 18,532 | 5,804 |
| 72. North Eastern Hill University, Shillong (1973) | Affiliating | 28 | 403 | 4,353 | 8033 |
| 73. Orissa University of Agriculture & Technology, Bhubaneswar (1961) | Unitary | 4 | 959 | — | 463 |
| 74. Osmania University, Hyderabad (1918) | Affiliating | 115 | 14,187 | 47,955 | 16,108 |
| 75. Punjab University, Chandigarh (1947) | Affiliating | 84 | 6,196 | 39,810 | 16,589 |

*Year in which it become a State University.

| | | | | | | |
|---|---|---|---|---|---|---|
| 76 | Patna University, Patna (1917) | Unitary | 12 | 8,223 | 961 | 4,414 |
| 77 | Poona University, Pune (1948) | Affiliating | 104 | 2,547 | 60,457 | 25,546 |
| 78 | Punjab Agricultural University, Ludhiana (1961) | Unitary | 5 | 2,568 | — | — |
| 79 | Punjabi University, Patiala (1961) | Affiliating | 49 | 3,317 | 19,338 | 8,425 |
| 80 | Punjabrao Krishi Vidyapith, Akola (1969) | Net yet Finalised | 7 | 2,248 | — | — |
| 81 | Rabindra Bharati University, Calcutta (1962) | Affiliating | 48 | 2,974 | — | 12 |
| 82 | Rajasthan University Jaipur (1946) | Affiliating | 149 | 9,120 | 67,240 | 1,972 |
| 83 | Rajendra Agricultural University, Patna (1970) | Unitary | 5 | 1,124 | — | — |
| 84 | Ranchi University, Ranchi (1960) | Affiliating | 67 | 8,477 | 15,911 | 29,276 |
| 85 | Ravi Shankar University, Raipur (1963) | Affilating | 61 | 414 | 25,216 | — |
| 86. | Rohilkhand University, Bareilly (1975) | Affiliating | 29 | — | 23,137 | — |
| 87 | Roorkee University, Roorkee (1948) | Unitary | — | 1,983 | | — |
| 88 | Sambalpur University, Sambalpur (1966) | Affiliating | 31 | 2,228 | 11,004 | 4,637 |
| 89 | Sampurnanand Sanskrit University, Varanasi (1958) | Affiliating | 119 | 703 | 2,004 | 2,462 |
| 90 | Sardar Patel University, Vallabh Vidyanagar (1955) | Affiliating | 18 | 1,291 | 8,553 | 3,825 |
| 91 | Sagar University, Sagar (1946) | Affiliating | 51 | 4,113 | 16,920 | 377 |
| 92 | Saurashtra University, Rajkot (1965) | Affiliating | 60 | 3,922 | 36,183 | 16,893 |
| 93 | Shivaji University, Kolhapur (1962) | Affiliating | 84 | 1,349 | 45,700 | 20,919 |
| 94 | S N D T Women's University, Bombay (1949) | Affiliating | 21 | 8,613 | 5,044 | 7,839 |
| 95 | South Gujarat University, Surat (1966) | ffiliating | 35 | 305 | 19,640 | 9,145 |
| 96 | Sri Venkateswara University, Tirupati (1954) | Affiliating | 45 | 2,703 | 24,617 | 10,800 |
| 97 | Tamil Nadu Agricultural University, Coimbatore (1971) | Unitary | 4 | 2,154 | — | — |
| 98 | Udaipur University, Udaipur (1962) | Affiliating | 14 | 4,134 | 4,029 | 96 |
| 99 | University of Agricultural Science, (Bangalore) (1963) | Unitary | 9 | 2,735 | — | — |
| 100 | Utkal University, Bhubaneswar (1943) | Affiliating | 58 | 4,618 | 19,586 | 28,616 |
| 101 | Vikram University, Ujjain (1957) | Affiliating | 44 | 2,589 | 17,315 | — |
| 102 | Visva-Bharati University, Santiniketan (1951) | Unitary | 7 | 1,578 | — | — |
| | **INSTITUTIONS DEEMED TO BE UNIVERSITIES** | | | | | |
| 1 | Birla Institute of Technology & Science, Pilani (1964) | Unitary | — | 2,055 | — | — |
| 2 | Central Inst of English & Foreign Languages, Hyderabad(1973) | Unitary | — | 97 | — | — |
| 3 | Gujarat Vidyapith Ahmedabad (1963) | Unitary | — | 447 | — | — |
| 4 | Gurukul Kangri, Hardwar (1962) | Unitary | — | x312 | — | 10 |
| 5 | Indian Agricultural Research Inst, New Delhi (1958) | Unitary | — | 514 | — | — |
| 6 | Indian Institute of Science, Bangalore (1958) | Unitary | — | 1,006 | — | — |
| 7. | Indian School of Mines, Dhanbad (1967) | Unitatry | — | 509 | — | — |
| 8 | Jamia Millia Islamia, New Delhi (1962) | Unitary | — | 1,023 | — | — |
| 9 | Tata Institute of Social Science, Bombay (1964) | Unitary | — | 198 | — | — |

Note . i Number of Universities as on I September 1977 is 105 The three new Universities are Kakatiya, Nagarjun & Rohtak Number of Instts deemed to be Universities as on I Sept 1977 is 10.

ii Enrolment figures in respect of Indirakala Sangeet Vishwavidyalaya, Rabindra Bharati & Sampurnanand Sanskrit University relate to the 'main campus' only

iii U P. Intermediate Board figures are not included in the above statement

iv Narendra Deo University of Agri & Technology has not yet started functioning

In the case of Institutions Deemed to be Universities, the year of establishment is the year of recognition as an Institution deemed to be University under Section 3 of the U G C Act, 1956

Year of establishment is the year in which the first university act received the Governor's assent

## 6. LALIT KALA AKADEMI AWARDS 1975 and 1976

No National Exhibition of Art was held during 1975 and 1976

## 7. SANGEET NATAK AKADEMI FELLOWSHIPS AND AWARDS 1975

Fellowships

1. Rasiklal Chotalal Parikh
2. Pandit Ravi Shankar
3. Smt T Balasaraswati,
4. Zubin Mehta
5. Embar Vijayaraghavachariar.

Awards

*Music*

1. Bhimsen Joshi (Hindustani Music-Vocal)
2. Ram Narayan (Hindustani Instrumental Music-Sarangi)
3. Mangalampalli Shri Balamuralikrishna (Karnatak Music-Vocal)
4. C S· Murugabhoopathy (Karnatak Music-Instrumental-Mridangam)
5. N P Krishnan Kutty (Dance-Instrumental Music-Maddalam)
6. Smt Indubala (Music)

*Dance*

1. Krishna Chandra Naik (Chhau Dance-Guru)
2. Smt Rajani Maibi (Manipuri)
3. Kumari Roshan Kumari (Kathak)
4. Sankaran Kutty Banicker (Kathakali)

*Drama*

1. Bijon Bhattacharya (Play-writing)
2. Smt Vijaya Mehta (Direction)
3. Smt Molina Devi (Acting-Bengali)
4. Ugam Raj (Folk Theatre-Khayal)

## SANGEET NATAK AKADEMI FELLOWSHIPS AND AWARDS 1976

Fellowships

1. Semangudi R. Srinivasa Iyer.
2. Prof Santidev Ghosh.

Awards

*Music*

1. Narayanrao G. Vyas (Hindustani Music-Vocal)
2. Karamtulla Khan (Hindustani Instrumental Music-Tabla)
3. Gopal Misra (Posthumous, Hindustani Instrumental Music-Sarangi)
4. K.V. Narayanaswamy (Karnatak Music-Vocal)
5. Sheik Chinna Maulana (Karanatak Instrumental Music-Nadaswaram)
6. Timir Baran Bhattacharya (Music Composition)

*Dance*

1. M. Muthaiah Pillai (Bharata Natyam-Guru)
2. Oja Maibam Ibungohal Singh (Manipuri)
3. Smt Sanjukta and Shri Raghunath Panigrahi (Joint Award for Odissi Dance and Music)
4. Narendra Sharma (Contemporary Choreography)

*Drama*

1. C.T Khanolker (Posthumous) (Playwriting)
2. B V Karanth (Direction)
3. Smt Jyotsna Bhole (Acting)
4. Surya Bhatia (Folk Theatre-Jatra)

## 8 SAHITYA AKADEMI AWARDS 1975[1]

| Language | Book | Author |
|---|---|---|
| Assamese | Kaka Deutar Har (novel) | Navakanta Barua |
| Bengal | Asamaya (novel) | Bimal Kar |
| Dogri | Mere Dogri Geet (Poems) | Krishna Smailpuri |
| English | Scholar Extraordinary (biography) | Nirad C. Chaudhari |

[1]Appendix to Chapter 6

| Language | Book | Author |
|---|---|---|
| Gujarati | Socrates (novel) | Manubhai Pancholi 'Darshak' |
| Hindi | Tamas (novel) | Bhisham Sahni |
| Kannada | Daatu (novel) | S L Bhyrappa |
| Kashmiri | Gaashir Munnar (essays) | Ghulam Nabi Khayal |
| Maithili | Kichhu Dekhal Kichhu Sunal (reminiscences) | Girindramohan Misra |
| Malayalam | Aksharam (poems) | O N V. Kurup |
| Marathi | Soundarya Mimansa (criticism aesthetics) | Dr R B Patankar. |
| Oriya | Surya O Andhkar (Poems) | Radha Mohan Gadanaya |
| Punjabi | Adh Chanani Raat (novel) | Gurdial Singh |
| Rajasthani | Pagfero (Peoms) | Mani Madhukar |
| Tamil | Tharkkala Tamizh Ilakkiam (essays) | Dr R Dhandayaudham |
| Telugu | Gudiselu Kaalipotunnai (Poems) | Dr Boyi Bhimanna |
| Urdu | Awara Sajde (Poems) | Kaifi Azmi |

SAHITYA AKADEMI FELLOWSHIPS AND AWARDS DURING 1976[1]

| Language | Book | Author |
|---|---|---|
| Assamese | Srinkhal (short stories) | Bhabendra Nath Saikia. |
| Bengali | Na Hanyate (novel) | Smt Maitraye Devi. |
| Dogri | Badnami di Chhan (short stories) | Ram Nath Shastri |
| English | Jawaharlal Nehru (1889-1947 (biography) | Dr S Gopal. |
| Gujarati | Aswattha (poems) | N K Pandya 'Ushanas' |
| Hindi | Meri Teri Uski Baat, (novel) | Yashpal |
| Kannada | Manamanthana (Psychiatry) | Dr M. Shivaram. |
| Kashmiri | Machama (plays) | Pushkar Bhan |
| Maithili | Sitayana (epic) | Vaidyanath Mallik 'Vidhu' |
| Malayalam | Jeevithappaatha (autobiography) | C. Govinda Pisharoti 'Cherukat'. |
| Manipuri | Mamang Laikai Thambal Shastley (Poems) | L. Samarendra Singh |
| Marathi | Smaran Gatha (autobiographical novel) | G.N. Dandekar. |
| Oriya | Thakura Ghara (short stories) | Kishori Charan Das |
| Punjabi | Ba Mulahaza Hoshiar (novel) | Narendrapal Singh |
| Rajasthani | Leeltans (poems) | Kanhaiyalal Sethia. |
| Sindhi | Jee-A Jharoko (poems) | Laxman Bhatia 'Koma |
| Urdu | Khak-e Dil (poems) | Jan Nisar Akhtar. |

1. Appendix to Chapter 6.

## 9. NATIONAL AWARDS FOR FILMS 1975[1]

| Category | Award | Film | Language | Awardee |
|---|---|---|---|---|
| ALL INDIA FILMS | | | | |
| Best feature film | Rs 40,000 and Swarna Kamal (Gold Lotus) | Chomana Dudi | Kannada | Ashok Kumar (Producer) Also Rs 15,000 and Rajat Kamal to B. V. Karanth (Director). |
| Second best feature film | Rs 15,000 and Rajat Kamal (Silver Lotus) | Mausam | Hindi | Mallikarjun Rao (Producer) Also Rs 10,000 and Rajat Kamal to Gulzar (Director) |
| Special award for feature film with mass appeal, wholesome entertainment and aesthetic value | Swarna Kamal | Tapasya | Hindi | M/s Rajashri Picture Pvt Ltd (Producer) also Rajat Kamal to Anil Ganguly (Director) |
| Excellence in direction | Rs 5,000 and Rajat Kamal | Jana Aranya | Bengali | Satyajit Ray |
| Excellence in cinematography | Rs 5,000 and Rajat Kamal | Apporva Raagangal | Tamil | B S Lokanathan (Cameraman) |
| Excellence in cinematography (Colour) | Rs 5,000 and Rajat Kamal | Muthyala Muggu | Telugu | Ishan Arya (Cameraman) |
| Best Actor | Rajat Kamal | Chomana Dudi | Kannada | M. V Vasudeva Rao |
| Best Actress | Rajat Kamal | Mausam | Hindi | Sharmila Tagore |
| Best Male Playback Singer | Rajat Kamal | Hamsa Geethe | Kannada | M. Balamurli Krishna |
| Best female Playback singer | Rajat Kamal | Apporva Raagangal | Tamil | Vani Jayaram |
| Best Music Director | Rs 10,000 and Rajat Kamal | Chameli Memsaab | Assamese | Bhupen Hazarika |
| Best story | Rs 10,000 and Rajat Kamal | Chomana Dudi | Kannada | Shivram Karanth |
| Best Information film | Rs 5,000 and Rajat Kamal | Winged Wonderland | English | Shanti Verma (Producer & Director) |
| Best Educational Instructional film | Rs 5,000 and Rajat Kamal | Induced Breeding | English | K K Kapil Also Rs 4,000 and Rajat Kamal to Suraj Joshi (Director) |
| Best Social documentation film | Rs 5,000 and Rajat Kamal | Bastar-Rhythm of Progress | English | C S. Nair (Producer & Director) |
| Best Commercial Promotional film (Advertisement) | Rajat Kamal | Zenith of India | English | Film Media (Producer) and Jyoti G Thakur (Director) |
| Best promotional (Non-commercial) film | Rajat Kamal | Poems in Pattern | English | Ranbir Ray (Producer & Director) |

[1]The awards are for the best feature films.

| | | | | |
|---|---|---|---|---|
| Best experimental film | Rs 5,000 and Rajat Kamal | Awashesh | Hindi | Film & TV Institute of India (Producer) Also Rs 4,000 and Rajat Kamal to K G Girish (Director) |
| Best Animation film | Rs 5,000 and Rajat Kamal | Business is People | English | Akar Films (Producer) Also Rs 4000 and Rajat Kamal to Kanti Lal Rathod (Director) |
| Best Cameraman | Rajat Kamal (to each) | Flood Havoc | English | A S Agnihotri, Abinashi Ram A R. Sareef |
| Best Indian News Review | Rajat Kamal | INR-1399 | English | N V. K. Murthy |
| Films in Regional Languages | Rs 10,000 and Rajat Kamal | Nishant | Hindi | Freni Variava and Mohan Bijlani (Producer). Also Rs 5,000 and Rajat Kamal to Shyam Benegal (Director) |
| —do— | —do— | Palanka | Bengali | M/s Filmarts Calcutta (Producer) also Rs 5,000 and Rajat Kamal to Rajan Tarafdar (Director) |
| —do— | —do— | Chameli Memsaab | Assamese | Seui Bolechabi Santha (Producer) Also Rs 5,000 and Rajat Kamal to Abul Majid (Director) |
| —do— | —do— | Appoorva Raagangal | Tamil | D. Jayalakshmi & Vijayalakshmi G (Producer). Also Rs 5,000 and Rajat Kamal to Balachander (Director) |
| —do— | —do— | Muthyala Muggu | Telugu | M V L Narisimha Rao (Producer) Also Rs 5,000 and Rajat Kamal to Bapu (Director) |
| —do— | —do— | Swapnadanam | Malayalam | T Mohammed Bapu (Producer) Also Rs 5, 000 and Rajat Kamal to K G. George (Director) |
| —do— | —do— | Hamsa Geethe | Kannada | M/s Anathalakshmi Films (Producer) Also Rs 5,000 and Rajat Kamal to G. V. Iyer (Director) |
| —do— | —do— | Samna | Marathi | Ram Das Phutane (Producer) Also Rs 5,000 and Rajat Kamal to Jabbar Patel. |

No Awards have been given in the categories ——

Best Feature film on National Integration ; Best Child Actor/Actress of the year Best screenplay of the year, Best lyric of the year and Best Children's Film of the year

## NATIONAL AWARDS FOR FILMS 1976

| Category | Award | Film | Language | Awardee |
|---|---|---|---|---|
| Awards for the National Best feature film | Rs 40,000 and Swarna Kamal | Mrigayaa | Hindi | K Rajeshwaa Rao (Producer) Also Rs 20,000 and Rajat Kamal to Mrina Sen (Director) |
| Award for best direction | Rs 20,000 and Rajat Kamal | Pallavi | Kannada | P. Lankesh (Director) |
| Award for the best Screen play | Rs 10,000 and Rajat Kamal | Manthan | Hindi | Vijay Tendular (Screen Play writer) |
| Award for best Actor | Rs 10,000 and Rajat Kamal | Mrigayaa | Hindi | Mithun Chakraborty |
| Award for best Actress | Rs 10,000 and Rajat Kamal | Sila Nerangalil Sila Manithargal | Tamil | Lakshmi |
| Award for best Child Actor | Rs 5,000 and Rajat Kamal | Chitchor | Hindi | Master Raju |
| Award for best Cinematography (Colour) | Rs 5,000 and Rajat Kamal | Rishya Shringa | Kannada | S. Ramachandra (Cameraman) |
| Award for best Cinematography (B & W) | Rs 5,000 and Rajat Kamal | Mohiniyattom | Malayalam | P. S Niwas (Cameraman) |
| Award for best Sound recording | Rs 5,000 and Rajat Kamal | Bhakta Kannappa | Telugu | S. Ramanathan (Sund Recordist) |
| Award for the best editing | Rs 5,000 and Rajat Kamal | Siri Siri Muva | Telugu | K Babu Rao |
| Award for best music director | Rs 10,000 and Rajat Kamal | Rishya Shringa | Kannada | B V Karanth |
| Award for best male play back singer | Rajat Kamal | Chitchor | Hindi | Yesudas |
| Award for the best female playback Singer | Rajat Kamal | Siri Siri Muvva | Telugu | Smt P Susheela |
| Award for the best feature film in regional Language. | Rs 10,000 and Rajat Kamal | Manthan | Hindi | M/s Shyam Benegal Sahyadri films (Producer ) Also Rs 5000 and Rajat Kamal to Shyam Benegal (Director) |
| | —do— | Saaphabee | Manipuri | C. Narayan Sharma (Producer) Also Rs 5,000 and Rajat Kamal to A. Syam Sharma (Director) |
| | —do— | Sesha Sravan | Oriya | Jagannath Film (Producer) Also Rs. 5,000 and Rajat Kamal to Prashant Nanda (Director) |
| | —do— | Mani-muzhakkam | Malayalam | K P Thomas (Producer) Also Rs. 5,000 and Rajat Kamal to P. A. Backer (Director) |
| | —do— | Ek Je Chhilo Desh | Bengali | R. N. Malhotra, R K. Kapur and V. K. Kapur (Producers) Also Rs 5,000 and Rajat Kamal to Tapan Sinha (Director) |

| | | | | |
|---|---|---|---|---|
| | —do— | Voorummadı Bathu Kulu | Telugu | Art Enterprises (Producer) Also Rs 5,000 and Rajat Kamal to B.S. Narayana (Director) |
| | —do— | Pallavı | Kannada | Smt. K S. Indira Lankesh (Producer) P. Lankesh |
| | —do— | Putala Ghar | Assamese | Samarendra Narayan Dev (Producer and Director) |
| Best Educational Instructional film | Rs 5,000 and Rajat Kamal | Marvel of Memory | English | Films Division (Producer) Also Rs 4,000 and Rajat Kamal to N. K. Issar (Director) |
| Best Social Documentation film. | Rs 5,000 and Rajat Kamal | Poverty to Prosperity | English | Mohan Wadhwani (Producer and Director) |
| Best Promotional film (non-commercial) | Rajat Kamal | New World of Power | English | S Sukhdev (Producer and Director) |
| Best Promotional film (Commercial) | Rajat Kamal | Sugar Beet | English | Films Division (Producer) Also Rajat Kamal to D. Gautaman (Director) |
| Best Experimental film | Rs 5,000 and Rajat Kamal | Murder at Monkey Hill | Hindi | The Director Film and TV Institute of India (Producer) Also Rs 4,000 and Rajat Kamal to Vinod Chopra (Director) |
| Best Newsreel Cameraman | Rs 5,000 and Rajat Kamal | Indian News Review No. 1462 | English | Abnashi Ram (Cameraman) |
| Best Indian News Review | Rs 5,000 and Rajat Kamal | Indian News Review No. 1459 | English | N S. Thapa (Producer) |

No Awards have been given in the categories :—
Best Feature Film with mass appeal, wholesome entertainment and aesthetic value, Best Feature Film on National Integration, Best Feature Film in each regional languages (Tamil, Gujarati, Marathi, Punjabi, Kashmiri, Sindhi, English), Best Story, Best Lyric writer, Best Children's Film.

## 10. FOREIGN DIPLOMATIC REPRESENTATIVES IN INDIA

(*As on July* 1977)

| Country | Name | Designation | Address |
|---|---|---|---|
| Afghanistan | H E Mr Hamidollah Enayat-Seraj | Ambassador | B-54, Greater Kailash, Part I, New Delhi-110057. |
| Algeria | H.E. Mr Omar Oussedik | Ambsssador | 13, Sunder Nagar, New Delhi-110003 |
| Arab Republic of Egypt | H E. Mr Hisham Amer | Ambassador | 55-57 Sunder Nagar, New Delhi-110003. |
| Argentina | H E. Dr Fernando Fernandez Esclante | Ambassador | 3/11, Shantiniketan, New Delhi-110021. |

| Country | Name | Designation | Address |
|---|---|---|---|
| Australia | H E Mr Peter J. Curtis | High Commissioner | 1/50-G, Shantipath, Chanakyapuri, New Delhi-110021 |
| Austria | H E Mr Wolfgang Schallenberg | Ambassador | 18, Jor Bagh, New Delhi-110003 |
| Bangladesh | H E Mr Shamsur Rahman | High Commissioner | 56, Ring Road, Lajpat Nagar III, New Delhi-110024 |
| Belgium | H E Mr Jean-Charles Salmon | Ambassador | 7, Golf Jinks, New Delhi-110003 |
| Bhutan | H E Mr Lyonpo Sangye Penjor | Ambassador | Chandragupta Marg, Chanakyapuri, New Delhi-110021 |
| Brazil | H E. Mr Roberto Luiz Assumpcao De Araujo | Ambassador | 8, Aurangzeb Road, New Delhi-110011 |
| Britain | H E Mr J A Thomson | High Commissioner | Shantipath, Chanakyapuri, New Delhi 110021 |
| Bulgaria | H E Mr Stoyan Zaimov | Ambassador | 50, Golf Links, New Delhi-110003 |
| Burma | H E U Chit Khin | Ambassador | Plot No 3, Block No 50-F, Nayaya Marg, Chanakyapuri, New Delhi-110021 |
| Canada | Mr S Beattie | Acting High Commissioner | 7/8 Shantipath, Chanakyapuri, New Delhi-110021 |
| Central African Empire | H E Jean-Louis G Psimhis | Ambassador | 59 Ring Road, Lajpat Nagar III, New Delhi-110024 |
| Chile | H E Mr Javier Illanes | Ambassador | 1/13 Shanti Niketan, New Delhi-11004 |
| China | H E Mr Chen Chao-Yuan | Ambassador | 50-D, Shantipath, Chanakyapuri, New Delhi-110021 |
| Colombia | H E Mr Antonio Izquierdo | Ambassador | No 82-D (Ground Floor), Malcha Marg, Chanakyapuri, New Delhi-110021. |
| Cuba | H E Dr Jose Lopez Sanchez | Ambassador | D -5, South Extension Part II, New Delhi-110049 |
| Czechoslovakia | Mr Jaromir Nehera | Charge'd Affairs | 50-M, Niti Marg, Chanakyapuri, New Delhi-110021 |
| Denmark | H E Mr Per Welsch Frellesvig | Ambassador | 2, Golf Links Area, New Delhi-110003• |
| Ethiopia | Mr S A Deneke | Charge'd Affairs | 7/50-G, Satya Marg, Chanakyapuri, New Delhi-110021. |
| Finland | Km Riita Oro | Ambassador | 42, Golf Links, New Delhi-110003 |
| France | Mr Jean-Claude Winckler | Ambassador | 2, Aurangzeb Road, New Delhi-110011 |
| German Democratic Republic | H E Mr Wolfgang Schuessler | Ambassador | 2, Nyaya Marg, Chanakyapuri, New Delhi-110021. |
| Germany-Federal Republic of | H E Dirk Oncken | Ambassador | No 6 Block 50-G, Shantipath, Chanakyapuri, New Delhi-110021 |
| Ghana | H E Mr Paul Boakye Duah | High Commissioner | A-42, Vasant Marg, Vasant Vihar, .Ne Delhi-110057. |

| | | | |
|---|---|---|---|
| Greece | H E Dr Basil Vitsaxis | Ambassador | 16, Sundar Nagar, New Delhi-110003. |
| Guyana | H.E. Mr Edward Victor Luckhoo | High Commissioner | F-6/4, Vasant Vihar, New Delhi-110057. |
| Holy See | H.E. Most Rev Msgr. Luciano Storero | Apostolic Pro-Nuncio | Niti Marg, Chanakyapuri, New Delhi-110021. |
| Hungary | H.E. Dr Ferenc Turi | Ambassador | 15, Jor Bagh, New Delhi-110003. |
| Indonesia | H E Lieut-General Soegih Arto | Ambassador | 50-A, Chanakyapuri, New Delhi-110021 |
| Iran | H E. Mr Gholam Reza Tajbakhsh | Ambassador | 65 Golf Links, New Delhi-110003. |
| Iraq | H E Mr Mohammad Said Al-Sahhaf | Ambassador | 169-171 Jor Bagh, Hew Delhi-110003 |
| Ireland | H E. Mr Denis Holmes | Ambassador | 13, Jor Bagh, New Delhi-110003. |
| Italy | H E Mr Carlo Calenda | Ambassador | 13, Golf Links, New Delhi-110003 |
| Japan | H E Mr Takashi Suzuki | Ambassador | 4 & 5, Block 50-G, Chanakyapuri, New Delhi-110021 |
| Jordan | H.E Mr Zuhair H Khair | Ambassador | 35, Malcha Marg, Chanakyapuri, New Delhi-110021 |
| Kenya | H E Mr S K Kimalel | High Commissioner | E-27, Defence Colony, New Delhi-110024. |
| Korea Democratic People's Repuplic of | H E Mr Yu Song Jin | Ambassador | F-42, N D S E. Part-1, New Delhi-110049 |
| Korea Repblic of | H E Mr Bum Suk Lee | Ambassador | B 2/16, Vasant Vihar, New Delhi-110057 |
| Kuwait | H E Mr Essa Abdul Rahman Al-Essa | Ambassador | 19 Friends Colony West, New Delhi-110014 |
| Laos | Souk Upravan | Ambassador | 4, Circular Road, Chanakyapuri, New Delhi-110021 |
| Lebanon | Mr Wafic Jaber | Charge'd Affairs | 3, Panchsheel Marg, Chanakyapuri, New Delhi-110021 |
| Libya | H.E. Mr Ahmed Rageb Feitur | Ambassador | 44-A, Amrita Shergill Marg, New Delhi-110003 |
| Malaysia | H E Tan Sri Haji Abdul Khalid Awang Osman | High Commissioner | 50-M, Satya Marg, Chanakyapuri, New Delhi-110021 |
| Mauritius | H E. Mr Rajmohunsing Jomadar | High Commissioner | 5, Kautilya Marg, Chanakyapuri, New Delhi-110021 |
| Mexico | Dr Jose Antonio Lara Villareal | Ambassador | N-88, Panch Sheela Park, New Delhi-110017 |
| Mongolia | H E Mr Buyantyn Dashtseren | Ambassador | 34, Golf Links, New Delhi-110003. |
| Morocco | H E Mr Abdelhaq Saadani | Ambassador | 33, Golf Links, New Delhi-110003. |
| Nepal | H E Mr Vedananda Jha | Ambassador | Barakhamba Road, New Delhi-110001. |
| Netherlands | H.E Mr Tjark A Meurs | Ambassador | 6/50F, Shantipath, Chanakyapuri, New Delhi-110021 |
| New Zealand | H E Dr C C Aikman | High Commissioner | 39, Golf Links, New Delhi-110003 |
| Nigeria | Mr A G. Gobir | High Commissioner | No 1, Panch Sheel Marg, Chanakyapuri, New Delhi-110021 |

| Country | Name | Designation | Address |
|---|---|---|---|
| Norway | H.E. Mr Per Gulowsen | Ambassador | Kautilya Marg, Chanakyapuri, New Delhi-110021. |
| Oman | H.E. Mr Ali Mohammed Al-Jamali | Ambassador | 22, Palam Marg, Vasant Vihar, New Delhi-110057. |
| Pakistan | H.E. Mr Syed Fida Hassan | Ambassador | 2/50-G, Shantipath, Chanakyapuri, New Delhi-110021. |
| Peru | H.E. Mr Juan Vargas-Quintanilla | Ambassador | 3/5, Shanti Niketan (First Floor) New Delhi-110021 |
| Philippines | H.E. Mr R. S. Busuego | Ambassador | 50-N, Nyaya Marg, Chanakyapuri, New Delhi-110021. |
| Poland | H.E. Mr Jan Czapla | Ambassador | 22, Golf Links, New Delhi-110003. |
| Portugal | H.E. Dr Luiz Gaspar Da Silva | Ambassador | A-24, West End Colony, New Delhi-11004. |
| Qatar | HE. Dr Hasan Ali Hussain Al-Ni Mah | Ambassador | A-3, West-End Colony, New Delhi-110021. |
| Romania | H.E. Dr Domitru Niculescu | Ambassador | 9, Tees January Marg, New Delhi-110011 |
| Saudi Arabia | H.E. Shaikh Saleh A. Al-Sugair | Ambassador | 1, Eastern Avenue, Maharani Bagh, New Delhi-110014. |
| Senegal | H.E. Dr Babacar Diop | Ambassador | F-63, Poorvi Marg, Vasant Vihar, New Delhi-110057. |
| Singapore | H.E. Mr K. M. Byrne | High Commissioner | 48, Golf Links, New Delhi-110003. |
| Somalia | Mr Tahir Yusuf Mohamud | Charge'd Affairs | B-23, Greater Kailash, New Delhi-110048. |
| Spain | H.E. Mr Leopoldo Martinez De Campos | Ambassador | 12, Prithviraj Road, New Delhi-110011. |
| Sri Lanka | H.E. Mr Justin Siriwardene | High Commissioner | 27, Kautilya Marg, Chanakyapuri, New Delhi-110021. |
| Sudan | H.E. Mr Hassan El Amin El Bashir | Ambassador | 6, Jorbagh, New Delhi-110003. |
| Sweden | H.E. Mr Lennart Finnmark | Ambassador | Nyaya Marg, Chanakyapuri, New Delhi-110021. |
| Switzerland | Etienne Suter | Ambassador | Nyaya Marg, Chanakyapuri, New Delhi-110021. |
| Syria | H.E. Mr Raslan Alloush | Ambassador | 28, Vasant Marg, Vasant Vihar, New Delhi-110057. |

| | | | |
|---|---|---|---|
| Tanzania | H.E. Mr A. D Hassan | High Commissioner | E-104 and E-106, Greater Kailash, New Delhi-110048. |
| Thailand | H E Dr Suchati Chuthasmit | Ambassador | 56, N-Nyaya Marg, Chanakyapuri, New Delhi-110021. |
| Trinidad and Tobago | H.E. Mr J K. P. Dumas | High Commissioner | 131 Jor Bagh, New Delhi-110003 |
| Turkey | H.E. Mr Oktay Iscen | Ambassador | 27, Jor Bagh, New Delhi-110003. |
| Uganda | H.E. Mr W. S K. Matovu | High Commissioner | 61, Golf Links, New Delhi-110003. |
| USSR | H.E. Mr Viktor F. Maltsey | Ambassador | 25, Barakhamba Road, New Delhi-110001. |
| United Arab Emirates | H.E. Mr Mohamed Abdul Lateef Rashed | Ambassador | A-7, West End, Rao Tula Ram Marg, New Delhi-110021 |
| United States of America | H.E Dr Robert F. Goheen | Ambassador | Shantipath, Chanakyapuri, New Delhi-110021 |
| Venezuela | H.E. Mr Tulio Cardozo Faria | Ambassador | N-114 Panchsheela Park, New Delhi-110017 |
| Viet-Nam, Socialist Republic of | H.E. Mr Nguyen Van Sinh | Ambassador | 35, Prithviraj Road, New Delhi-110011. |
| Yemen, People's Democratic Republic of | H E. Mr Alawi Abdul Rehman Assakaff | Ambassador | 68, Ring Road, Lajpat Nagar III, New Delhi-110024. |
| Yugoslavia | H.E. Mr Ilija Topaloski | Ambassador | 3/5 O/G, Niti Marg, Chanakyapuri, New Delhi-110021. |
| Zaire | H E Mr Nzau Makunga | Ambassador | 160, Jor Bagh, New Delhi-110003. |
| Zambia | H E. Mr A C Chalikulima | High Commissioner | 14 Jor Bagh, New Delhi 110003 |
| **CONSULATES** | | | |
| Monaco | Mr R. Chattaram | Consul General (Honorary) | D-1, Defence Colony, New Delhi-110024 |
| San Marino | Mr Bhai Mohan Singh | Consul General | 15, Aurangzeb Road, New Delhi-110011. |
| United Nations The International Court of Justice. | Mr Nagendra Singh | Judge | 6, Akbar Road, New Delhi-110011. |
| United Nations Development Programme | Mr Roger Polgar | Resident Represenative | 55, Lodi Estate, Post Box 136, New Delhi-110003. |
| Food and Agiculture Organisation of the United Nations. | Mr J. Van Der Meulen | FAO Representative in India | 55, Lodi Estate, Post Box No. 136, New Delhi-110003. |
| World Food Programme | Mr Roger Polgar | Representative | 55, Lodi Estate, New Delhi-110003. |
| United Nations Information Centre | Dr Johann S. Szuszkiewicz | Director | 55, Lodi Estate, New Delhi-110003. |

## 11. INDIA'S REPRESENTATIVES ABROAD

(As on 1 October 1977)

| Country | Name | Designation | Address | Remarks |
|---|---|---|---|---|
| **EMBASSIES** | | | | |
| Afghanistan | S K Singh | Ambassador | Embassy of India, Malai Wa Shahr-e-Nau, Kabul | |
| Algeria | K. K S. Rana | Ambassador | Embassy of India, 119 ter, Rue Didouche Mourad, 4th floor, Algiers | Concurrently accredited as Ambassador to Mauritania |
| Argentina | S M S Chadha | Ambassador | Embassy of India, Paraguay, 580 (3rd floor), Buenos Aires | Concurrently accredited as Ambassador to Paraguay an Uruguay |
| Austria | Amrik S Mehta | Ambassador | Embassy of India, Opernring Stiege R/VIII 1, A-1010, Vienna-1 | Permanent Representative of India to the International Organizations in Vienna |
| Bahrain | D C Manners | Ambassador | Embassy of India, No 2299/7 Ali Adlia Area, Jufair, Bahrain, P O Box No 5106, Bahrain | |
| Belgium | P. K Dave | Ambassador | Embassy of India, 121, Avenue Moliere, 1180, Brussels | Concurrently accredited to Grand Dutchy of Luxembourg, the European Economic Community and the European Coal and Steel Community Also India's Permanent Representative to GATT |
| Bolivia | Hardev Bhalla | Ambassador | Embassy of India, LA PAZ, C/o Embassy of India Santiago | Ambassador resident in Santiago |
| Brazil | H S Vahali | Ambassador | Embassy of India, QLI/1, Casa 14, Lago Sul | |
| Bulgaria | S H Desai (desig ) | Ambassador | Embassy of India, 31, Blvd Patriarch Eftimii, Sofia | |
| Burma | N P Alexander | Ambassador | Embassy of India, Oriental Assurance Building 545/547 Merchant St. Box No 751, Rangoon | |
| Burundi | Madanjeet Singh | Ambassador | Embassy of India, Bujumbura, C/o High Commission of India, Kampala | Resident in Kampala |
| Cambodia | Vacant | Ambassador | Embassy of India, Phnom Penh | |
| Cameroun | Avtar Singh | Ambassador | Embassy of India, Yaounde, C/o High Commission of India, Lagos, | |

| | | | | |
|---|---|---|---|---|
| Central African Empire | P P D 'Souza | Ambassador | Embassy, of India, Central African Empire, C/o Embassy of India, Kinshasa. | Resident in Kinshasa |
| Cape Verde Islands | S H Desai | Ambassador | Embassy of India, Cape Verde Islands, C/o Embassy of India, Dakar. | Resident in Dakar |
| Chile | Hardev Bhalla | Ambassador | Embassy of India, 871 Tiiana, Post Box No 10433, Santiago. | Concurrently accredited as Ambassador to Bolivia |
| China | K R Narayanan | Ambassador | Embassy of India, 1 Jih Tan Tung Lu, Peking | |
| Colombia | K C Lalvunga | Ambassador | Embassy of India, Carrera 7, No 87-20, Apartment No 104, Bogota. | |
| Comores | A W B Vaz | Ambassador | Embassy of India. Comores, C/o Embassy of India, Tananarive. | Resident in Tananarive |
| Chad | Mubarak Shah | Ambassador | Embassay of India, Chad, C/o Embassy of India, Khartoum | Resident in Khartoum |
| Congo | P P D 'Souza | Ambassador | Embassy of India, Brazzaville C/o Embassy of India, Kinshasa | Resident in Kinshasa |
| Costa Rica | Chhedi Lal | Ambassador | Embassy of India, San Jose C/o Embassy of India, Panama | Resident in Panama |
| Cuba | B K Basu | Ambassador | Embassy of India, Calle, 21 Nro, 202, esquina a K Vedado, Havana | |
| Czechoslovakia | Surendra Sinh Alirajpur | Ambassador | Embassy of India, Valdstejnska-6, Malastrana, Prague-1. | |
| Dahomey | Avtar Singh | Ambassador | Embassy of India, Cotonou C/o High Commission of India | |
| Denmark | G G Bewoor | Ambassador | Embassy of India, Vengehusvej 15, Copenhagen | |
| Ecuador | Smt Manorama Bhalla | Ambassador | Embassy of India, Ecuador, C/o Embassy of India Lima | Resident in Lima |
| Arab Republic of Egypt | A S Chib | Ambassador | Embassy of India, 5, El Shaer Aziz, Abaza Street, Zamalek, Post Box 718, Cairo | |
| Equatorial Guinea | P P D 'Souza | Ambassador | Embassy of India, Equatorial Guinea, C/o Embassy of India, P. O. Box 1026, Kinshasa | Resident in Kinshasa |
| Ethiopia | V V Paranjpe | Ambassador | Embassy of India, Kabena (Aware District) Post Box No 528, Addis Ababa | |
| Finland | S. S Nath | Ambassador | Embassy of India, Annankatu, 15 B 14 (5th floor) 00120, Kelsinki-12. | |

| Country | Name | Designation | Address | Remarks |
|---|---|---|---|---|
| France | R. D Sathe | Ambassador | Embassy of India, 15 rue Alfred Dehodencq, Paris-16. | |
| Gabon | P P. D'Souza | Ambassador | Embassy of India, Gabon, C/o Embassy of India, Kinshasa. | Resident in Kinshasa. |
| German Democratic Republic | R. Axel Khan | Ambassador | Embassy of India, 108-Berlin Clara-Zetkin-strasee/89/06. | |
| Germany Federal Republic of | M. A Rahman | Ambassador | Embassy of India, 262, Adenauerallee, 53 Bonn. | |
| Greece | N Krishnan | Ambassador | Embassy of India, Athens, C/o Embassy of India, Belgrade. | Resident in Belgrade. |
| Guatemala | A. N. Mehta | Ambassador | Embassy of India, Guatemala, C/o Embassy of India, Mexico City. | Resident in Mexico City. |
| Guinea | Smt Usha Nath (desig) | Ambassador | Embassy of India, Kebe Building, 3rd Floor, B P. 186/bis Conakry-1. | |
| Guinea Bissau | S H. Desai | Ambassador | Embassy of India, Bissau, C/o Embassy of India, Dakar. | Resident in Dakar. |
| Holy See | U. S. Bajpai | Ambassador | Embassy of India, Holy See, C/o Embassy of India Berne. | Resident in Berne. |
| Hungary | A. K. Dass | Ambassador | Embassy of India, Buzavirag, Utca-14, Budapest-II. | |
| Iceland | G. G. Swell | Ambassador | Embassy of India, Reykjavik, C/o Embassy of India, OSLO. | |
| Indonesia | B.C. Mishra | Ambassador | Embassy of India, 44 Kebon Sirih, Jakarta. | |
| Iran | K. R. P. Singh | Ambassador | Embassy of India, No. 166, Avenue Sabah Shomali Off Takhte Jamshid, Post Box No. 2473, Tehran. | |
| Iraq | D. S Kamtekar | Ambassador | Embassy of India, Taha Street, Najeeb Pasha, Adhamiya, Baghdad. | |
| Ireland | N. N. Jha | Ambassador | Embassy of India, 3, Leeson Park, Dublin-6 | |
| Italy | Smt K. Rukmini Menon | Ambassador | Embassy of India, Via Venti Settembre, 5, Rome. | Concurrently accredited as High Commissioner to Malta |
| Ivory Coast | S H. Desai | Ambassador | Embassy of India, Abidjan, C/o Embassy of India, Dakar. | Resident in Dakar. |
| Japan | Eric Gonsalves | Ambassador | Embassy of India, 2-11, Kudan Minami, 2-Chome Chiyoda-ku, Tokyo. | |

| | | | | |
|---|---|---|---|---|
| Jordan | Vishwa Mitter | First Secretary/C.D.A. | Embassy of India, Taufic Marar Building near Ist Circle, Jabel, Post Box 2168, Amman. | |
| Korea, Korea Republic of | S. M. Aga | Ambassador | Embassy of India, San-2-1, Bokwang-Dong, YongaanKu, (Behind Bowling Centre), Seoul | |
| Korea, Democratic People's Republic | J. T. Kallukaran (desig.) | Ambassador | Embassy of India, Block 66, Munsudong district Daedong Young, Pyong Yang. | |
| Kuwait | G. Raj | Ambassador | Embassy of India, 34 Share Istiqlal, P. O. Box No. 1450 (Safat), Kuwait. | |
| Laos | E A. Srinivasan | Ambassador | Embassy of India, Rue that Luang, P. O. Box No 225, Vientiane. | |
| Lebanon | Dr S. Sinha | Ambassador | Embassy of India, 31, Kantari Street Sahmarani Building, P. O. Box No. 1764, Beirut. | |
| Liberia | Miss C. B. Muthamma | Ambassador | Embassy of India, Monrovia, C/o High Commission of India, Accra. | Resident in Accra. |
| Libya | Narendra Singh | Ambassador | Embassy of India, 16/18 Sh. Armondi Garden City, P. O. Box 3150, Tripoli. | |
| Luxembourg | K. B Lall | Ambassador | Embassy of India, Grand Dutchy of Luxembourg, C/o Embassy of of India, Brussels. | Resident in Brussels. |
| Malagasy Republic | A. W. B. Vaz | Ambassador | Embassy of India, 4, Lalana Rajaonson Emile, Antananarivo. | Concurrently accredited as Ambassador to Comore. |
| Maldives | Gurbachan Singh | Ambassador | Embassy of India, Male. | Resident in Colombo. |
| Mali | S. H. Desai | Ambassador | Embassy of India, Bammako, C/o Embassy of India, Dakar. | Resident in Dakar. |
| Mauritania | K. K. S. Rana | Ambassador | Embassy of India, Nouackchott, C/o Embassy of India, Algiers. | Resident in Algiers. |
| Mexico | A. N. Mehta | Ambassador | Embassy of India, Masset, 325 Colonia Anzures, Mexico 5, D. F. | Concurrently accredited to Guatemala as Ambassador. |
| Mongolian Peoples Republic | Y. R. Dhawan | Ambassador | Embassy of India, 26-Peace Street, P. O. Box No. 691, Ulan Bator | |
| Morocco | P K. Guha | Ambassador | Embassy of India, 10 Avenue de Champagne, (Agdal) Rabat. | |
| Mozambiqe | A. R. Kakodkar | Ambassador | Embassy of India Avendia Kenneth Kaunda. | Concurrently accredited as High Commissioner to Swaziland. |

| Country | Name | Designation | Address | Remarks |
|---|---|---|---|---|
| Nepal | N B. Menon | Ambassador | Embassy of India, G P O Box No 292, Kathmandu | |
| Netherlands | M Rasgotra | Ambassador | Embassy of India, Buitenrustweg, The Hague. | |
| Nicaragua | Chhedi Lal | Ambassador | Embassy of India, Nicaragua C/o Embassy of India, Panama | Resident in Panama |
| Niger | Avtar Singh | Ambassador | Embassy of India, Niger, C/o High Commission of India Lagos | Resident in Lagos |
| Norway | G G Swell | Ambassador | Embassy of India, Skovveien, 12, 2nd Floor OSLO-2 | Concurrently accredited as Ambassador to Iceland (Reykjavik) |
| Oman | A K. Budhiraja | Ambassador | Embassy of India, P O Box 77, Muscat. | |
| Panama | Cheddi Lal | Ambassador | Embassy of India, Post Box 8400, Panama-7, Panama | Concurrently accredited as Ambassador to Costa Rica & Nicaragua |
| Pakistan | K S Bajpai | Ambassador | Embassy of India, 482-F, Sector G-6/4, Islamabad | |
| Paraguay | S M S Chadha | Ambassador | Embassy of India, Asuncion C/o Embassy of India, Buenos Aires | Resident in Buenos Aires |
| Peru | Smt Manorama Bhalla | Ambassador | Embassy of India, San Ignacio De Loyala 150, Miraflores, Lima | Concurrently accredited as Ambassador to Equador. |
| Philippines | L N Ray | Ambassador | Embassy of India, Room 502 Campos Rueda Bldg, 101 Tindalo Street Makati Rizal (Greater Manila) | |
| Poland | S K Bhutani | Ambassador | Embassy of India, No 16 Niegolewskiego, Warsaw-86 | |
| Portugal | P. K Guha (desig) | Ambassador | Embassy of India, Lisbon, Rua das Amoreiras 72, D-6, Lisbon-1 | |
| Qatar | K M Lal | Ambassador | Embassy of India, Sheikh Villa No 5, El Sheikh, Suheim Street, Post Box No 2788 Doha. | |
| Rumania | S L Kaul Kilam | Ambassador | Embassy of India, 52 Strada Galati, Bucharest | |
| Rwanda | Madanjeet Singh | Ambassador | Embassy of India, Kigali, C/o High Commission of India, Kampala. | Resident in Kampala. |

| | | | | |
|---|---|---|---|---|
| Saudi Arabia | M. A Quraishi | Ambassador | Embassy of India, Ibrahim Masoud Building, Medina Road, Baghdadia, P. O. Box 952, Jeddah. | |
| Senegal | S H Desai | Ambassador | Embassy of India, Immeuble Danial Sorano Avenue dela Republique, 9th floor, P B 398, Dakar. | Concurrently accredited as Ambassador to Ivory Coast, Cape Verde Islands, Mali, Guinea Bissau and High Commissioner to Gambia. |
| Somalia | B P. Agarwal | Ambassador | Embassy of India, Via Balad, P.B. No. 955, Mogadishu | |
| Spain | V. M. M. Nair | Ambassador | Embassy of India, Velazquez 93, Madrid-6. | |
| Sudan | Mubarak Shah | Ambassador | Embassy of India, No 2, El Mek Nimir Street, P O Box 707, Khartoum | Concurrently accredited to Chad as Ambassador |
| Surinam | R N Gupta (desig ) | Ambassador | Embassy of India, Paramaribo. | |
| Sweden | S. Sen | Ambassador | Embassy of India, Adolf Fredriks Kyrko ata 12 II Box 1340 S-11183 Stockholm. | |
| Switzerland | U. S. Bajpai | Ambassador | Embassy of India, 20, Kalcheggweg, 3000 Berne | Concurrently accredited to the Vatican & Holy See as Ambassador |
| Syrian Arab Republic | A. P. Venkateswaran | Ambassador | Embassy of India, 40/46 Adhan Malki Street, Yassin Nouwelati Bldg ; P. B. 685, Damascus. | |
| Thailand | G J. Malik | Ambassador | Embassy of India, 139 Pan Road, Bangkok | Also Permanent Representative of India to ESCAP. |
| Togo | Avtar Singh | Ambassador | Embassy of India, Lome, C/o High Commission of India, Lagos | |
| Tunisia | K. Pratap | Ambassador | Embassy of India, 6, Rue Felician Belvedere, Tunis. | |
| Turkey | S. Bikram Shah | Ambassador | Embassy of India, No. 24, Kibris, Sokak Cankaya, Ankara. | |
| United Arab Emirates | M. H Ansari | Ambassador | Embassy of India, Said Muharbi Building (behind Al Massood, Villas Khalidia) Abu Dhabi. | |
| Upper Volta | Miss C. B Muthamma | Ambassador | Embassy of India, Ouagadungou, C/o High Commission of India, Accra. | Resident in Accra. |
| Uruguay | S. M. S. Chadha | Ambassador | Embassy of India, Montevideo, C/o Embassy of India, Buenos Aires. | Resident in Buenes Aires |
| U. S. A. | N. A. Palkhivala | Ambassador | Embassy of India, 2107 Massachussetts, Avenue N. W Washington, D. C. 20008 | Concurrently accredited to Bahamas as High Commissioner. |

| Country | Name | Designation | Address | Remarks |
|---|---|---|---|---|
| U. S. S. R. | I. K. Gujral | Ambassador | Embassy of India, No. 6-8 Ulitsa Obukha, Moscow. | |
| Vatican | U. S. Bajpai | Ambassador | Embassy of India, Vatican (Italy), C/o Embassy of India, Berne. | Resident in Berne. |
| Venezuela | Nirmal Jeet Singh | Ambassador | Embassy of India, Edificio Nuevo Centro Piso. 7, Officina "B" Avenida, Libertador, Apartado de Consul General for Netherlands Correosdel Este 61585, Chacao, Antilles Caracas-106 | Consul General for Netherlands Antilles. |
| Socialist Republic of Vietnam. | M. R. Sivarama-Krishnan | Ambassador | Embassy of India, No 58, Tran Hung Dao, Hanoi. | |
| Yemen Arab Republic. | B. D. Goswami | Ambassador | Embassy of India, Al Amri Building Gamal Abdul Nasser Street, Sanaa Indembassy, Sanaa. | |
| YemenPeoples' Democratic Republic | J. Barua | Ambassador | Embassy of India, Premjee Chambers, Steamer Point, Aden. | |
| of Yugoslavia | N. Krishnan | Ambassador | Embassy of India, Dositejeva 26, Belgrade. | Concurrently accredited to Greece as Ambassador. |
| Zaire | P. P. D 'Souza | Ambassador | Embassy of India, P. B. No. 1026, 18 B, Avenue des Batetela Gombe, Kinshasa. | Concurrently accredited as Ambassador to Gabon Congo (Brazzaville) Central African Republic and Equatorial Guinea. |
| **HIGH COMMISSIONS** | | | | |
| Australia | J. C. Ajmani | High Commissioner | High Commission of India 135, Monaro Crescent, Red Hills, Canberra A. C. T. 2603. | |
| Bangladesh (a) Dacca | K. P. S. Menon | High Commissioner | High Commission of India, Road No. 2, Dhanmondi, Residential Area, Dacca-2. | |
| Bahamas | N. A. Palkhivala | High Commissioner | High Commission of India, Bahamas, C/o Embassy of India, Washington. | Resident in Washington. |
| Barbados | Dr Barakat Ahmad | High Commissioner | High Commission of India, Bridgetown, C/o High Commission of India, Port of Spain | Resident in Port of Spain (Trinidad) |
| Botswana | K Natwar Singh | High Commissioner | High Commission of India, Gaberones, C/o High Commission of India, Lusaka. | Resident in Lusaka. |

| | | | | |
|---|---|---|---|---|
| Canada | Mahboob Ahmad | High Commissioner | High Commission of India, 200 Maclaren Street, Ottawa (Canada), K 2 OL 6. | |
| Cyprus | Dr S. Sinha | High Commissioner | High Commission of India Nicosia, C/o Embassy of India, Beirut. | Resident in Amman. |
| Fiji | R. C. Arora | High Commissioner | High Commission of India, Suite No. 202, Fiji, Development Bank Building, Victoria Parade, Suva. | Jurisdiction extends to the UN Trust Territory of Caroline and Marshal Island; Soloman Island; New Hebrides, & Gilbert and Elice Islands; New Caledonia; and Society Islands. Also concurrently accredited as High Commissioner of India to Kingdom of Tonga & Republic of Nauru and also to Papua New Guinea. |
| Zambia | S. H. Desai | High Commissioner | High Commission of India, Bathurst, C/o Embassy of India, Dakar. | Resident in Dakar. |
| Ghana | Miss C. B. Muthamma | High Commissioner | High Commission of India, 5, Monkata Avenue, Hicomind, Accra-2154. | Concurrently accredited to Liberia & Upper Volta as ambassador and Sierra Leone as High Commissioner. |
| Grenada | Dr Barakat Ahmad | High Commissioner | High Commission of India, C/o High Commission of India Trinidad. | Resident in Trinidad. |
| Guyana | P. Johari | High Commissioner | High Commission of India, No 10 Avenue of the Republic, Georgetown. | |
| Jamaica | J. S. Doddamani | High Commissioner | High Commission of India, No. 4, Retreat Avenue, Kingston. | |
| Kenya | A. N.D. Haksar | High Commissioner | High Commission of India, Jeevan Bharati, 2nd Floor Harambee Avenue, Nairobi. | Concurrently accredited to Seychelles as High Commissioner and accredited as Permanent Representative of India to the United Nations Environment Programme. |
| Lesotho | M. S. Nair | High Commissioner | High Commission of India, Maseru, C/o High Commission of India Kamuzu Procession Road, 'Progress House' Lilongwe. | Resident in Lilongwe. |

| Country | Name | Designation | Address | Remarks |
|---|---|---|---|---|
| Malawi | M S Nair | High Commissioner | High Commission of India, Kamuzu Procession Road, 'Progress House, Lilongwe, | 'Concurrently accredited to Lesotho as High Commissioner |
| Malaysia | S J S Chhatwal | High Commissioner | High Commission of India, 19, Jalan, Melaka, United Asian Bank, Berhad Building, Kuala Lumpur | |
| Malta | Smt K. Rukmini Menon | High Commissioner | High Commission of India, Valletta, C/o Embassy of India, Rome. | Resident in Rome |
| Mauritius | Kailash Chandra | High Commissioner | High Commission of India, Bank of Baroda Building, 5th Floor, Sir William Newton Street, Port Louis | |
| Newzealand | B Deva Rao | High Commissioner | High Commission of India, 49, Willis Street, Wellington Western Samoa | Concurrently accredited as High Commissioner to Western Samoa |
| Nigeria | Avtar Singh | High Commissioner | High Commission of India, 17, Awolowo Road | Concurrently accredited as Ambassador to Republics of Togo, Dahomey, Cameroun and Niger |
| Papua New Guinea | R C. Arora | High Commissioner | High Commission of India, Papua, New Guinea, C/o High Commission of India, Suva | |
| Sierra Leone | Miss C B Muthamma | High Commissioner | High Commission of India, Freetown, C/o High Commission of India, Accra | Resident in Accra |
| Singapore | V. Siddharthacharry | High Commissioner | High Commission of India, India House, 31 Grange Road Killiney Road, Singapore | |
| Sri Lanka (a) Colombo | Gurbachan Singh | High Commissioner | High Commission of India, State Bank of India Building 18 3/1, Sir Baron Jayatilleke Mawatha, Fort Colombo-1. | Concurrently accredited to Maldives as Ambassador. |
| Swaziland | A R Kakodkar | High Commissioner | High Commission of India, Mbabane, C/o Embassy of India, Maputo. | Resident in Maputo |
| Seychelles | A N D. Haksar | High Commissioner | High Commission of India, Seychelles, C/o High Commission of India, Nairobi | Resident in Nairobi. |
| Tanzania | K D Sharma | High Commissioner | High Commission of India, 11th floor 'A' Wing NIC, Investment House, Mirambo Street, Dar-Es-Salaam. | |

| | | | | |
|---|---|---|---|---|
| Kingdom of Tonga | R. C Arora | High Commissioner | High Commission of India, Tonga, C/o High Commission of India, Suva | Resident in Suva |
| Trinidad & Tobago | Dr Barakat Ahmed | High Commissioner | High Commission of India, 87, Cipriani Bulevard, P O. Port of Spain | Concurrently accredited as High Commissioner to Barbados and Grenada, Commissioner to the Associated States-Antigua Dominica St. Kitts-Nevi-Anguilla, St Lucia, Commissioner to St Vincen Montsearrat the Turks and Caicos, and also Cayman Islands. |
| Uganda | Madanjeet Singh | High Commissioner | High Commission of India, Bank of India Bulding, Kampala Road, Kampala | Concurrently accredited as Ambassador in Rwanda and Burundi |
| United Kingdom | B. K. Nehru | High Commissioner | High Commission of India, India House, Aldwych, London W C 2 N A | |
| Western Samoa | B. Deva Rao | High Commissioner | High Commission of India, Apia, C/o High Commission of India, Wellington | Resident in Wellington |
| Zambia | K Natwar Singh | High Commissioner | High Commission of India, Anchore House, Lusaka House, Cairo Road, Lusaka | Concurrently accredited as High Commissioner for India to Botswana. |
| **SPECIAL MISSIONS** | | | | |
| Bhutan | J R. Hiremath | Representative India | Office of the Representative in Bhutan, Lungtenzempa, Thimphu | |
| United Nations (a) New York | R Jaipal | Ambassador/Permanent Representative | Permanent Mission of India to the United Nations, New India House, 3 East 64th Street, New York | |
| Belgium | Dr K B Lall | Ambassador | Mission of India to the European Economic Community and European Coal & Steel Community, Avenue Moliere 129, Brussels-1180. | |
| Kenya | A N. D Haksar | Permanent Representative | Permanent Representative of India to the United Nations Environment Programme, Nairobi | |
| **COMMISSIONS** | | | | |
| Hong Kong Commission of India | M. K Mangalmurti | Commissioner | 304 AIA Building, 1 Stubbs Road, Hong Kong | |

| Country | Name | Designation | Address | Remarks |
|---|---|---|---|---|
| Germany | | | | |
| (a) Munich | Robert Gedon | Consul General | Consulate General of India, 8 Munich 2, Leopold Str. 87, Munich-2. | |
| (b) Stuttgart | Dr R. Kissel | Consul General | Consulate General of India, 7 Stuttgart Degerlock, Weldstr 5, 7 Stuttgart | |
| Greece (Athens) | I.J. Vatadis | Consul General | Consulate General of India, No. 1, Valoritou, Street, Athens 134. | |
| Italy (Genoa) | Jack Clerici | Consul | Consulate General of India Via Martin Piaggio-15 | |
| Italy (Milan) | Dr Nino Trapani | Consul General | Consulate General of India, Milan Via Goito 11-20151 Milan | |
| Paraguay (Asuncion) | Antonio Rodolfo Zuccolillo | Consul General | Consulate General of India, Cerro Coray Paragurai, Asuncion | |
| Poland (Gydnia) | V. Nilakantan | Consul | Consulate of India, Gydnia, Panama 1, R.P. | |
| Spain | | | | |
| (a) Canary Island | Chandan Bulchand | Consul | Consulate of India, Triana 35. Las Palmas | |
| (b) Barcelona | Luis Valeriano | Consul General | Consulate General of India, Calle Maestro Perez Cabrero, 3, Barcelona. | |
| Sudan (Port Sudan) | Shantilal Jadavji | Consul | Consulate of India, Jadavjee Building, Street No. 11, Port Sudan. | |
| Sierra Leone | R. D. Rajwa | Consul | Consulate of India, Post Box No. 26 Free town | |
| U. S. A. | | | | |
| (a) Cleveland (Ohio) | Col George P. Bickford | Consul | Consulate of India, 1144 Union Commerce Building, Cleveland (Ohio) | |
| (b) Hawai (Honolulu) | Smt. G. J. Watumull | Consul | Consulate of India, 2227 A, Kala Kaua Avenue, Honolulu (Hawaii) | |
| (c) New Orleans | Neils F Johnson | Consul General | Consulate General of India, 2701, International Trade Mart, New Orleans, la. 70130. | |
| Uruguay | Adolf Vegh | Consul General | Consulate of India, Plaza Zabala 324, Montevideo | |

# BIBLIOGRAPHY

*The bibliography is meant to serve as a guide to further reading on the subjects covered in the volume*


## 1. THE LAND AND THE PEOPLE

AGARWALA, S N. *India's population problems. Bombay, Tata* McGraw Hill, 1973.

DESAI, P B. *Size and sex composition of population in India 100-1861 Bombay* Asia, Publishing House, 1969.

GOVERNMENT OF INDIA *Imperial gazettee of India* London, University of Oxford, 1909

INDIA, MINISTRY OF EDUCATION *National Atlas of India.* New Delhi, the author, 1957

—do— *Gazetteer of India, Indian Union. VI : Country and people* New Delhi, Publications Division, 1965.

INDIA, REGISTRAR GENERAL AND CENSUS COMMISSIONER *Census of India 1971 : Final population. Series* 1 *Paper* 1 *of 1972.* Delhi, Manager of Publications, 1972

—do— *Census of India* 1971 *Religion Series* 1 *Paper* 2 *of 1972.* Delhi, Manager of Publications, 1972

—do— *Census of India 1971 · Economic characteristics of population. Series* 1 *Paper* 3 *of 1972* Delhi, Manager of Publications, 1972

KHANDPUR, SWARN *India; The land and its people.* Bombay, Ratnabharati, 1971.

MISRA, S D. *Rivers of India* New Delhi, National Book Trust 1970

SHARMA, J S. *Encyclopaedia Indica* New Delhi, S Chand, 1975

SINGH, R.L *India : A regional geography* Varanasi, National Geographica Society of India, 1971

SPATE, O H K AND LEARMONTH, A.T A. *India and Pakistan : A general and regional geography. Ed.* 3 London, Methuen, 1967

—do— *India and Pakistan : Land, people and economy Ed 9* London. Methuen 1967

## 2. NATIONAL SYMBOLS

INDIA, MINISTRY OF INFORMATION AND BROADCASTING *Our flag. Rev. ed,* New Delhi, Publications Division, 1963.

—do— *Our national songs Rev. ed,* New Delhi, Publications Division, 1962

—do— *Our national emblem* New Delhi, Publications Division, 1966

SEN, PRABODHCHANDRA *India's national anthem* Calcutta, Santiniketan Asramika Sangha, 1949

## 3. GOVERNMENT

**Constitution**

AGARWAL, R C. *Comparative study of the Indian constitution and administration.* New Delhi, S Chand, 1973

AGGARWALA, R N. *National movement and constitutional development of India Ed 9* Delhi, Metropolitan Book Co., 1976

BANERJEE, A C. *Indian constitutional documents. 3V.* Calcutta, A. Mukherjee, 1961

BASU, D D. *Commentary on the constitution of India. 5V. Ed 5.* Calcutta, S C. Sarkar, 1956-70

—do— *Constitutional law of India.* New Delhi, Prentice-Hall of India, 1977

BISWAS, A R. *Indian constitutional and legal history.* Calcutta, N M Raychowdhury, 1971.

CHAUDHURI, D.B R *Aspects of parliament and government in India* New Delhi, Rachana Prakashan, 1972

CHHABRA, G S. *Indian constitutional system 1947 to present day.* Jullundur, New Academic Publishing Co., 1973

CHITALEY, D V AND APPA RAO, S *Constitution of India : With exhaustive analytical and critical commentaries, 5V. Ed* 2. Bombay, All India Reporter, 1970

GWYER, MAURICE AND APPADORAI, A *Speeches and documents on the Indian constitution* 1921-47 *2V.* Bombay, Asia Publishing House, 69.

INDIA, MINISTRY OF LAW AND JUSTICE — *Constitution of India (as modified up to 1 February 1977)* Delhi, Manager of Publications, 1977

JAIN, D C — *Parliamentary Privileges under the Indian constitution*. New Delhi, Sterling Publishers, 1975

JAIN, S N *etc.* — *The union and the states* Delhi, National Publishing House, 1972

KAGZI, M C J. — *Constitution of India*, Delhi, Metropolitan, 1975

MAHESHWARI, B L *ed* — *Centre-State in the seventies*. Calcutta, Minerva Associates, 1973

MANSERGH, NICHOLAS *ed* — *Transfer of power 1942-47*. 6V London, Her Majesty's Stationery Office, 1970-76

MARKANDAN, K C — *Amending process and constitutional amendments in the Indian constitution*. New Delhi, Sterling Publishers, 1972

SHAKDHER, S L *ed* — *Constitution and the Parliament in India* New Delhi National Pub House, 1976.

SHIVA RAO, B *ed* — *Examining India's constitution*, 5V. Bombay N M Tripathi, 1966-68.

Legislature

AGGARWALA, R N. — *Financial committees of the Indian parliament* New Delhi, S. Chand, 1966

CHANDIDAS, R *ed.* — *India votes : A source book on Indian elections* Bombay, Popular Prakashan, 1968

HIDAYATULLAH, M. — *Parliamentary privileges the Press and the Judiciary* Bombay, Asia, 1970.

INDIA, ELECTION COMMISSION — *Report on the general elections in India, 1951-52, 1957, 1962, 1967 and 1971-72*, Delhi, Manager of Publications

—do— *Report on the mid-term general elections in India, 1968-69*. 2V. Delhi, Manager of Publications, 1970

—do— *Mannual of election law*. Delhi, Manager of Publications, 1970.

INDIA, LOK SABHA SECRETARIAT — *Rules of procedure and conduct of business in Lok Sabha Ed* 6. New Delhi, the author, 1977.

INDIA, MINISTRY OF INFORMATION AND BROADCASTING — *Fourth general elections : An analysis* New Delhi the author, 1967

JAIN, R B — *Indian parliament : Innovations reforms and development*, Calcutta, Minerva, 1976

KASHYAP, SUBHASH C *ed* — *Elections and electoral reforms in India* New Delhi, Institute of Constitutional and Parliamentary Studies, 1971.

KAUL, M. N AND SHAKDHER, S L — *Practice and procedure of Parliament Ed* 2 Delhi, Metropolitan Book Co, 1972

KOTHARI, RAJNI — *Party system and election studies* Bombay, Allied Publishers, 1967

MALLYA, N.N. — *Indian parliament*. New Delhi, National Book Trust, 1970.

RAY, K.C — *Law of elections in India with special reference to defections*. Calcutta, Eastern Law House, 1969.

SINGHVI, L M *ed* — *Parliament and administration in India* Delhi. Metropolitan Book Co., 1972

SINGHVI, L M — *Parliamentary committees in India* New Delhi, Institute of Constitutional and Parliamentary Studies, 1973

SRIVASTAVA, G S.L — *Law of Indian elections and election petitions, Ed* 3 Lucknow, Eastern Book Co., 1969

WEINER, MYRON AND FIELD, JOHN OSGOOD *ed* — *Studies in electoral politics in the Indian States*, 4V. Delhi, Manohar Book Service, 1975.

Executive

APPLEBY, P H. — *Public administration in India Report of a survey*. Delhi, Manager of Publications, 1953

—do— *Public administration for a welfare state*. Bombay, Asia Publishing House, 1970

—do— *Re-examination of India's administrative system with special reference to administration of government's industrial and commercial enterprises* Delhi, Manager of Publications, 1956

AWASTHI, D. — *Dawn of modern administration*. New Delhi, S Chand, 1972

BATUK SINGH — *Union PublicService commission*, New Delhi, Publication Division. 1974.

BHAMBHARI, C P — *Public administration in India* Delhi, Vikas, 1976

BHARDWAJ, R K — *Municipal administration in India A sociological analysis of rural and urban India* New Delhi, Sterling Publishers, 1970

DUBHASI, P R — *Rural development administration in India* Bombay. Popular Prakashan, 1970

GORWALA, A D — *Report on public administration* New Delhi, Planning Commission, 1951

INDIAN INSTITUTE OF PUBLIC ADMINISTRATION — *Organisation of the government of India, Ed 2* Bombay, Somaiya Publications, 1971.

—do— — *New vistas in administration* New Delhi, the author, 1976

KHERA, S S — *District administration in India* Bombay, Asia Publishing House, 1964

—do— — *Central executive* New Delhi, Orient Longmans, 1975

MAHESHWARI, S R — *Indian administration* Bombay. Orient Longmans, 1968

—do— — *Local government in India* Bombay, Orient Longmans, 1971

MISRA, B B — *Administrative history of India, 1834-1947 General administration* Bombay, Oxford University Press 1970

PAI, PANANDIKAR, V A ed — *Development administration in India* New Delhi, Macmillan, 1974

PRASAD, BISWANATH — *Indian administrative service* New Delhi, S Chand, 1969.

SAXENA, A P — *Training and development in government* Delhi, Indian Institute of Public Administration, 1974

SHUKLA, J D — *State and district administration in India* New Delhi, Indian Institute of Public Administration, 1976.

**Judiciary**

CHATURVEDI, R G — *Judiciary under constitution* Allahabad, Law Book Co , 1972

GLEDHILL, A — *Republic of India · The development of its laws and constitution Ed 2* Bombay, N M Tripathi, 1971

HIDAYATULLAH, M. — *Judicial methods* Delhi, National Publishing House 1970

JHA, CHAKRADHAR — *Judicial review of legislative acts* Bombay, N M. Tripathi, 1974

MITTAL, J K — *Introduction to Indian legal history* Allahabad, Allahabad Law Agency, 1970

SETALWAD, M C — *Common law in India Ed 2* Bombay, N M Tripathi 1970

## 4 DEFENCE

AGGARWALA, A N — *Economic mobilization for national defence* Bombay, Asia Publishing House, 1966

BARANWAL, S P — *Military year book*, 1975-76 New Delhi Guide Publications 1976

—do— — *Measures of civil defence in India* New Delhi, Army Educational Stores, 1969

HANDA, ROHIT — *Policy of India's defence* New Delhi, Chetra Pub 1976

KHERA, S S — *India's defence problem* Bombay, Orient Longmans, 1968

LONGER, V — *Red coats to olive green A history of Indian army 1600-1974* Bombay, Allied Publishers. 1974

MAJUMDAR, B N — *Study of Indian military history* New Delhi Army Educational Stores, 1963

NAGENDRA SINGH — *Theory of force and organisation of defence in Indian constitutional history from earliest times to 1947.* Bombay, Asia Publishing House 1969

PANT, G N — *Studies in Indian weapons and warfare* New Delhi, Army Educational Stores 1970

PRAVAL, K C — *India's paratroopers* Delhi, Thompson Press 1974

VENKATESWARAN, A L — *Defence organisation in India* New Delhi, Publications Division 1967.

## 5. EDUCATION

AGGARWAL, J C — *A source book of Indian education.* New Delhi, Arya Book Depot 1975

AGGARWALA, D V AND GURBACHAN SINGH — *All India educational directory.* Chandigarh, All India Directories Publishers, 1972

ASSOCIATION OF INDIAN UNIVERSITIES — *Universities handbook India*, 1976. New Delhi, the author, 1976.

BAKHSHI, GOVERDHAN LAL — *Towards better education* New Delhi, S Chand, 1971

BHATT, B D AND AGGARWAL, J C ed — *Educational documents in India 1813-1968 · Survey of Indian education* New Delhi, Arya Book Depot, 1969

BISWAS, ARAOINDA AND AGGARWAL SUREN, ed — *Indian educational documents since independence Committees commission, conferences* New Delhi, Academic Publishers, 1971

| | |
|---|---|
| INDIA, MINISTRY OF EDUCATION | *Education in India · Annual* Delhi, Manager of Publications |
| —do— | *Education in the states : Annual* Delhi, Manager of Publications |
| —do— | *Education in universities in India. Annual.* New Delhi, the author |
| —do— | *Report of the Secondary Education Commission.* Delhi, the author, 1969 |
| —do— | *Report of the University Education Commission.* 2 D. Delhi, Manager of Publications, 1951 |
| —do— | *Report of the Education Commission 1964-66 : Education and National Development* Delhi, Manager of Publications, 1966 |
| —do— | *Report of the Committee on Model Act for Universities* New Delhi, the author, 1964 |
| COLEGN INDIA, MINISTRFY OF SCIENTIFIC RESEARCH AND CULTURAL AFFAIR, | *Report of the Committee on Post-graduate Engineering Education and Research* New Delhi, the author, 1961 |
| INSTITUTE OF CONSTITUTIONAL AND PARLIAMENTARY STUDIES | *Student unrest : Problems and perspectives* New Delhi, the author, 1966 |
| KALRA, R.M. | *Meaning science education for rural schools in India* New Delhi, Sterling: 1976 |
| KAUL, J N. | *Higher education in India : 1951-71 · The decades of planned drift.* Simla, Indian Institute of Advanced Study, 1974 |
| KOTHARI, D S | *Education, science and national development* Bombay, Asia Publishing House, 1970 |
| MADAN MOHAN | *Problems of university education in India* Meerut, Meenakshi Prakashan, 1972 |
| MATHUR, V.S. | *Crucial problems in Indian education.* New Delhi, Arya Book Depot, 1970 |
| MUKERJI, S.N | *Administration of education : Planning and finance* Vadodara, Acharya Book Depot, 1970 |
| NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING | *Second national survey of secondary education in India* [New Delhi, NCERT, 1969 |
| RAMANATHAN, G | *Quest for general education* Bombay, Asia Publishing House 1971. |
| SAIYIDAIN, K G. | *Facets of Indian education* New Delhi, NCERT, 1971 |
| SHAH, A.B *ed* | *Modernisation of university teaching* Bombay, Nachiketa Publications, 1969 |
| SHARMA, R C | *Wastage and stagnation in primary and middle schools in India.* New Delhi, NCERT, 1969 |
| SHUKLA, P D | *Towards the new pattern of education in India.* New Delhi, Sterling, 1976 |
| SRIVASTAVA, R.C | *Student participation in administration : A study of teacher training institutions.* New Delhi, Sterling Publishers, 1975 |
| THOMAS, T.M | *Indian educational reforms in cultural perspective·* New Delhi, S Chand, 1970 |

## 6. CULTURAL ACTIVITIES

| | |
|---|---|
| AGARWALA, V.S | *Heritage of Indian art.* New Delhi, Publications Division, 1969 |
| AMBROSE, KAY | *Classical dances and costumes of India.* London, Adam and Charles Black, 1950 |
| ANAND, M.R | *Indian theatre.* London, Dobson, 1950 |
| BANDYOPADHYAYA, S. | *Music in India* Bombay, D B Taraporevala, 1970 |
| BANERJI, P. | *Dance of India* Allahabad, Kitabistan, 1960 |
| BASHAM, A L. *ed.* | *Civilizations of monsoon Asia* New Delhi, S Chand, 1975 |
| BAXI, S J. AND DWIVEDI, V.P. | *Modern museum · Organisation and practice in India* New Delhi, Abhinav Publications, 1973 |
| BHAVNANI, ENAKSHI, | *Dance in India* Bombay, D B Taraporevala, 1965 |
| BROWN, PERCY | *Indian architecture.* 2V Bombay, D B Taraporevala, 1956. |
| —do— | *Indian painting. Ed.* 6 Calcutta YMCA Publishing House, 1963. |
| CHAITANYA DEVA, B | *Introduction to Indian music* New Delhi, Publications Division, 1973 |
| CHATTOPADHYAYA, KAMALADEVI | *Glory of Indian handicrafts* New Delhi, Indian Book Co., 1976 |
| —do— | *Handicrafts of India* New Delhi, Indian Council of Cultural Relations, 1975 |
| COOMARASWAMY, A.K. | *History of Indian and Indonesian art.* New Delhi, Munshiram Manoharlal, 1972 |
| ESHPANDE, V.H. | *Indian musical traditions* Bombay, Popular Prakashan, 1972 |

DONGERKERY, K S. — *Jewellery and personal adornment in India.* Delhi, Vikas Publications, 1971

FERGUSSON, JAMES — *History of Indian and eastern architecture, 2V.* Delhi, Munshiram Manoharlal, 1967

GARGI, BALWANT — *Theatre in India.* New York, Theatre Arts Books, 1962

GHOSH, D P. — *Studies in museum and museology in India* Calcutta, Indian Publications, 1968

GHOSH, N — *Fundamentals of raga and tala : With a new system of notation.* Bombay. Popular Prakashan, 1968.

HOLROYDE, PEGGY — *Indian music : A vast ocean of promise* London, Groege Allen & Unwin, 1972

INDIA, MINISTRY OF EDUCATION — *Gazetteer of India . History and culture. V* 2 New Delhi, Publications Division, 1973

INDIA, MINISTRY OF INFORMATION AND BROADCASTING — *Indian handicrafts, Ed* 2 New Delhi, Publications Division, 1969

JONES, W. AND WILLARD, N A — *Music of India* Calcutta, Sushil Gupta, 1962

KRAMRISCH, STELLA — *Art of India, Ed* 2 London, Phaidon Press, 1955.

MATHUR, J.C — *Drama in rural India* Bombay Asia Publishing House, 1964

MUKHERJEE, R. — *Flowering of Indian art* Bombay, Asia Publishing House, 1964.

MUNSHI, K M — *Saga of Indian sculpture* Bombay, Bharatiya Vidya Bhavan, 1957

NATH, R — *Colour decoration in Mughal architecture* Bombay, D B Taraporevala, 1970

PINGLE, B A. — *History of Indian music.* Calcutta, Sushil Gupta, 1962

RAGINI DEVI — *Dance Dialects of India* Delhi, Vikas Publications, 1972

REDDY, P T. — *Drawings, painting and sculpture* Bombay, New Book Co, 1969

SAMBAMOORTHY, P. — *History of Indian music* Madras, Indian Music Publishing House, 1960

SHANTI SWARUP — *Arts and crafts of India and Pakistan* Bombay, D B Taraporevala, 1970

SIVARAMAMURTI, C. — *Indian painting* New Delhi, National Book Trust, 1970

SMITH, V A. — *History of fine arts in India and Ceylon Ed* 3 Bombay, D.B. Taraporevala, 1962

STRANGWAYS, A H F. — *Music of Hindustan.* London, Oxford University Press, 1965

SUBBA RAO, T V — *Studies in Indian music.* Bombay, Asia Publishing House, 1962

VATSYAYAN, KAPILA — *Classical Indian dance in literature and the arts* New Delhi, Sangeet Natak Akademi, 1968.

—do— — *Indian classical dance.* New Delhi, Publications Division, 1974.

—do— — *Traditions of Indian Folk dance* New Delhi, Indian Book Co, 1976

VIDYARTHI L P. — *Conflict, tension and cultural trends in India* Calcutta, Punthi Pustak, 1969

WELLS, H W — *Classical drama of India Studies in the values for the literature and theatre of the world* Bombay, Asia Publishing House, 1963

WINSTEDT, RICHARD *ed.* — *Indian art* New Delhi, Oxford & IBH Publishing Co, 1969.

## 7. SCIENTIFIC RESEARCH

BISWAS, A K — *Science in India* Calcutta, K L Mukhopadhyaya, 1969.

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH — *Science in India Ed* 2 New Delhi, the author, 1966

—do— — *Directory of Scientific research in Indian Universities* New Delhi, the author, 1974

INDIA, MINISTRY OF INFORMATION AND BROADCASTING — *Our research institutions* New Delhi, Publications Division, 1974

JAGGI, O P — *History of science and technology in India* 5 V Delhi, Atma Ram & Sons, 1969-72

JAIN, J P. — *Nuclear India 2V* New Delhi, Radint Publishers, 1974

MIRCHANDANI, G G — *India's nuclear dilemma* New Delhi, Popular Book Services, 1969

MOREHOUSE, W — *Science in India.* Bombay Popular Prakashan, 1971

PRESS INSTITUTE OF INDIA — *Science and India's future.* Delhi, Vikas Publications, 1969

RAHMAN, A. AND SHARMA, K D *ed.* — *Science policy studies* Bombay, Somaiya Publications, 1974

RANDHAWA, M.S — *Agricultural research in India.* New Delhi, ICAR, 1958

SARABHAI, VIKRAM — *Science policy and national development:* Bombay, Orient Longmans, 1974

UKIL, A C. *ed* — *History of science in India* New Delhi, National Institute of Sciences of India, 1963

## 8 HEALTH

BANERJI, D — *Family planning in India.* New Delhi, People's Publishing House, 1978

BERELSON, B — *National programmes in family planning: Achievements and problems.* Meerut, Meenakshi Prakashan, 1969

BHAVE, V N — *You and your health, Ed* 2. New Delhi, National Book Trust, 1969

BURTON, L.E AND SMITH, H H — *Public health and community medicine.* Calcutta, Scientific Book Agency, 1970

CHANDRASEKHAR, S. — *Abortion in a crowded world : The problem of abortion with special reference to India* London, George Allen & Unwin, 1974

INDIA INTERNATIONAL CENTRE — *National health seminar proceedings :* National seminar on the *role of voluntary agencies in the implementation of public health, medical care and family planning programmes under five year plans* New Delhi, the author, 1966.

KRISHNAMURTY, K G — *Research in family planning in India.* Delhi, Sterling Publishers 1968

MEHTA, USHA AND NARDE, A D — *Health insurance in India and abroad.* Bombay, Allied Publishers 1965

RAO, KAMALA GOPAL — *Studies in Family Planning, India* Delhi, Abhinav Publications, 1974

## 9. SOCIAL WELFARE

BHATTACHARYA, V. — *Some aspects of social security measures in India.* Delhi, Metropolitan Book Co , 1970

CHATTERJEE, BISHWA B. — *Impact of social legislation on social changes* Calcutta, Minerva Associates, 1971

CHOWDHRY, D P. — *Voluntary social welfare in India* New Delhi, Sterling Publishers, 1971

CHOWDHURY, S R. — *Sickness insurance in India and Britain* Calcutta, World Press, 1966

DUEBY, S N — *Administration of social welfare programmes in India* Bombay, Somaiya Publications, 1972

GANGRADE, K D — *Dimensions of social work in India.* New Delhi, Marwah, 1976

INDIA, CENTRAL SOCIAL WELFARE BOARD — *Report of the Advisory Committee on After-care Programme* New Delhi, the author, 1955

—do— — *Report of the Advisory Committee on Social and Moral Hygiene.* New Delhi, the author, 1955

INDIA, MINISTRY OF EDUCATION AND SOCIAL WELFARE — *Towards equality , Report of the committee on the status of Women in India.* New Delhi, the author, 1974

INDIA, PLANNING COMMISSION — *Report of the Study Team on Prohibition* Delhi, Manager of Publications, 1963-64.

—do— — *Social legislation : Its role in social welfare.* New Delhi, Publications Division, 1956

—do— — *Encyclopaedia of social work in India* 3V. New Delhi, Publications Division, 1968

KUPPUSWAMY, B. — *Social change in India* Delhi, Vikas Publications, 1972

MADAN, G R. — *Social change and problems of development in India.* Bombay, Allied Publishers, 1978

RAO, A V.R. — *Industrial social services in a developing economy* Bombay, Allied Publishers, 1970

SHARMA, K M. — *Social assistance in India* Delhi, Macmillan, 1976

SINGH, SITA RAM — *Nationalism and social reform in India* Delhi, Ranjit Printers & Publishers, 1968

SRINIVAS, M N *ed* — *Social change in modern India.* New Delhi, Orient Longmans, 1972

VENUGOPALA RAO, S. — *Facets of crime in India. Ed* 2. Bombay, Allied Publishers, 1967

WADIA, A R *ed.* — *History and philosophy of social work in India. Ed* 2 Bombay. Allied Publishers, 1968

## 10. MASS COMMUNICATION


AGARWAL, S — *Press, public opinion and government in India* Jaipur. Asha Publishing House, 1970

ALL INDIA NEWSPAPER EDITOR'S CONFERENCE — *What ails the Indian press* Bombay, Somaiya Publications, 1971

AWASTHY, G C — *Broadcasting in India* Bombay, Allied Publishers, 1968

BANERJEE, SUMANTA — *India's monopoly press : A mirror of distortion* New Delhi, I WJ, 1973

BARNOUW, E AND KRISHNASWAMY, S — *Indian film* New York, Columbia University Press, 1963

BHATTACHARYA, VIVEK — *Communication in a global Village.* New Delhi, Chetna 1976

CHALAPATHI RAU, M — *Press in India* Bombay, Allied Publishers, 1968

CHATTERJEE, R K — *Mass Communication* New Delhi, National Book Trust, 1973

CHILDREN'S FILM SOCIETY, — *Report of the Study Team on the Working of the Children's Film Society vis-a-vis Future of Children's Film Movement in India,* New Delhi, the author, 1968

DHARAP, B V — *Indian Film* 1977, Pune, Motion Picture Enterprises, 1978

GAUR, MADAN — *Other side of the coin An intimate study of Indian film industry* Bombay, Trimurti Prakashan, 1973

GHOSH, KEDAR — *Freedom and fraud of the press.* Calcutta, Rupa and Co , 1973

INDIA, MINISTRY OF INFORMATION AND BROADCASTING — *Report of the press Commission.* 3 *Pts* Delhi, Manager of Publications, 1954

—do— *Report of the Film Enquiry Committee* Delhi, Manager of Publications, 1951

—do— *Report of the Enquiry Committee on Small Newspapers,* 1965 Delhi, Manager of Publications, 1966

—do— *Report of the Committee on News Agencies : August* 1977. New Delhi, Controller of Publications, 1977

—do— *Press in India* 1976 *Annual Report of the Registrar of Newspapers for India* 2 *Pts.* Delhi, Manager of Publications, 1977

—do— *Indian cinema,* 1965 New Delhi, Publications Division, 1965

—do— *Report of the Advisory Committee on the Press Council* 1968 New Delhi, the author, 1969

—do— *Radio and television Report of the Committee on Broadcasting and Information Media* New Delhi, the author, 1966

—do— *Report of the Enquiry Committee on Film Censorship* New Delhi, the author, 1969

—do— *Report of the Evaluation Committee on Plan Publicity by Voluntary Organisations* New Delhi, the author, 1965

—do— *Report of the Mass Communication Study Team (Sponsored by the Ford Foundation)* New Delhi, the author, 1963

—do— *Report of the Study Team on Five Year Plan Publicity* New Delhi, the author, 1965

—do— *Report of the Fact Finding Committee on Newspaper Economics.* New Delhi, the author, 1975

—do— *Two decades of Films Division.* Bombay, Films Division, 1969

—do— *National Documentation Centre on Mass Communication, Report of the Committee of Experts* New Delhi, the author, 1975

—do— *White Paper on misuse of Mass Media during the internal emergency.* New Delhi, Controller of Publications, 1977

INDIAN NEWS AND FEATURE ALLIANCE — *Press and advertisers year book* 1977. New Delhi, the author, 1977

JAIN, R D — *Economic aspects of the film industry in India* Delhi, Atma Ram & Sons, 1960

KRISHNAMURTHY, N. — *Indian journalism* Mysore, Mysore University, 1970

KUPPUSWAMY, B. — *Communication and social development in India* New Delhi, Sterling 1976

LEWIS, JAME — *Active reporter* Delhi, Vikas Publications, 1969

LANGAM, T.N M — *Circulation problems in Indian nawspapers* Delhi, Press Institute of India, 1968

MAHMOOD, HAMEEDUDDIN — *Kaleidoscope of Indian Cinema* New Delhi, Affiliated East West Press, 1974

MANKEKAR, D R — *Press under pressure* New Delhi, New cck Co 1973

MASANI, MEHRA — *Broadcasting and the people,* New Delhi, BBT, 1976

MATHUR, J C — *New lamps for Aladdin : Mass media in developing societies* bay, Orient Longmans, 1965

MENON, N — *Communication revolution* New Delhi, NBT, 1976

MINATHUR, JOSEPH — *Freedom of press in India.* The Hague, Martinus Najhoff, 1961

MOTRA, M. — *History of Indian journalism* Calcutta, National Book Agency, 1969

MULLICK, K S. — *Tangled tapes: Inside story of Indian broadcasting.* New Delhi, Sterling Publications, 1974

NARASIMHAN, V K. — *Press, the public and the administration.* New Delhi, Indian Institute of Public Administration, 1962

NATARAJAN, S — *History of the press in India.* Bombay, Asia Publishing House, 1962

NICHOLIS, BRIAN — *Features with flair.* Delhi, Vikas Publications, 1972

NOORANI, A G. — *Freedom of the press in India.* Bombay, Nachiketa Publications, 1971

OPERATION RESEARCH GROUP — *National readership survey* 5 Y. Vadodara, the author, 1972

—do— — *Media scene in India: Highlights from the national readership survey* Vadodara, the author, 1972

—do— — *Report of the Readership Survey.* 14V. Vadodara, the author, 1973-74

PARIKH, R D. — *Press and society: A sociological study* Bombay, Popular Prakashan, 1965

PRESS INSTITUTE OF INDIA — *Press and the law* New Delhi, the author, 1968

RAMAREDDI, P — *Cinematograph code.* Hyderabad, Cinematograph Laws Research Institute, 1969

RAY, SATYAJIT — *Our film their films.* Bombay, Orient long man, 1976

SARKAR, CHANCHAL — *Press councils and their role.* New Delhi, Press Institute of India, 1965

—do— — *Challenge and stagnation. The Indian mass media* Delhi, Vikas Publications, 1969

—do— — *Changing press* Bombay, Popular Prakashan, 1962

SARKAR, KOBITA — *Indian Cinema today An analysis.* New Delhi, Sterling Publishers, 1975

SAHNI, J N. — *Truth about the Indian Press.* Bombay, Allied Publishers, 1974

UMRIGAR, K D. — *Journalists and the law.* Allahabad, Law Book Co, 1970

UNESCO — *Developing mass media in Asia: Papers of Unesco meeting at Bangkok,* 1960 Paris, the author, 1960

—do— — *Mass media in developing countries* Paris, the author, 1966

—do— — *Social education through television. An All India Radio-Unesco pilot project.* Paris, the author, 1963.


## 11. ECONOMIC STRUCTURE


BAUER, P.T. — *Dissent and development Studies and debates in development economics* Delhi, Vikas Publishing House, 1973.

BEPIN BEHARI — *Economic growth and technological change in India* Delhi, Vikas Publishing House, 1974.

BHULESKHAR, A.V. *ed.* — *Indian economic thought and development,* Bombay, Popular Prakashan, 1969

CHARAN SINGH — *India's economic policy. The Gandhian blueprint.* Delhi, Vikas, 1978

CHAUDHURI, PRAMIT *ed.* — *Aspects of Indian economic development.* London, George Allen Unwin, 1971

CHAVAN, B W. AND CHAVAN, ANITA — *National income in India: Concepts and methods* Bombay, Sindhu Publications, 1970

DAGLI, VADILAL *ed* — *Infrastructure for Indian economy.* Bombay, Vora & Co.

DATTA, RUDDAR AND SUNDHARAM, K.P M. — *Indian economy.* New Delhi S. Chand, 1976

DEULKAL, DURGA — *Development without aid* Delhi, National Council of Applied Economic Research, 1976

DEWET, K K. — *Indian economics A development oriented study. Ed* 2 New Delhi, S Chand 1971.

DUTT, R C. — *Economic history of India* V2, New Delhi, Publications Division, 1970

EVANS, L H — *Decade of development: Problems and issues.* New Delhi, Oxford & IBH Publishing Co., 1969

GADGIL, D R. — *Planning and economic policy in India.* Pune, Gokhale Institute of Politics, 1972

GHOSH, A.B — *Price trends and policies in India* Delhi, Vikas Publishing House, 1974

| | |
|---|---|
| GHOSH, ALAK | *Indian economy · Its nature and problems. Ed* 17. Calcutta World Press, 1973 |
| INDIA, MINISTRY OF EDUCATION AND SOCIAL WELFARE | *Gazetteer of India, Indian union V.* 3 *Economic structure and activities* New Delhi, the author, 1975 |
| INDIA, MINISTRY OF FINANCE | *Current economic situation, a review.* New Delhi, the author 1971 |
| —do— | *Economic survey,* 1977-78 Delhi, the author, 1976 |
| INDIA, MINISTRY OF INFORMATION AND BROADCASTING | *India since independence* New Delhi, Publications Division, 1971 |
| INDIA, MINISTRY OF PLANNING | *National account statistics* 1970-71—1975-76 Delhi, the author 1975 |
| LAKHANI, H G. | *Problems of economic development of India Ed* 4 Bombay, New Literature Publishing Co 1969 |
| MUKHERJEE, M | *National income of India Trends and structure.* Calcutta, Statistical Society of India, 1969 |
| PRASAD, D N. | *External resources in economic development of India* New Delhi, Sterling Publishers, 1972 |
| RAO, V.K R V. AND SEN, S R. *ed* | *Papers on national income and allied topics* 2 *V.* Bombay Asia Publishing House, 1960-62 |
| SANKARAN, S | *Economic development of India,* Bombay, Progressive Publishers, 1976 |
| SREEKANTARADHYA, B S. | *Public debt and economic development in India.* New Delhi Sterling Publishers, 1972 |
| SWAMY, S | *Indian economic planning An alternative approach* Delhi, Vikas Publishing House, 1971 |
| TARLOK SINGH | *India's development experience.* Delhi, Macmillan Co of India, 1974 |
| V.B. SINGH | *Indian economy, yesterday and today.* New Delhi, People Publishing House, 1970 |


## 12. FINANCE


| | |
|---|---|
| AGARWALA, A.N. AND S.P SINGH, *ed* | *Accelerating investment in developing economics* Bombay, Oxford University Press, 1969 |
| AGARWALA, R.N. | *Financial committees of the Indian parliament* New Delhi, S. Chand 1966 |
| BHARGAVA, R.N | *Indian public finances* Bombay, Orient Longmans, 1970 |
| BOMBWALL, K.R. | *Federal financial relations in India* Meerut, Meenakashi Prakashan, 1970 |
| CHANDA, ASOK | *Aspects of audit control* Bombay, Vora & Co. 1967 |
| DAHEJIA, V.T. | *Views and reviews in finance and banking.* Bombay, Vora & Co, 1969 |
| DALAYA, C. | *External debt of the government of India,* Bombay, Vora & Co, 1970 |
| DESAI, V.R M. | *Banking development in India* Bombay, Manaktalas, 1967 |
| ELDRIDGE, P.J. | *Politics of foreign aid in India* Delhi, Vikas Publications, 1970 |
| GHATAK, SUBRATA | *Rural money market in India,* Delhi, Macmillion, 1976 |
| INDIA, CONTROLLER OF INSURANCE | *Indian insurance year book.* 1976 Delhi Manager of Publications, 1977 |
| INDIA, MINISTRY OF FINANCE | *Final report on rationalisation and simplification of the tax structure.* New Delhi, the author, 1968 |
| —do— | *Economic survey, Annual* New Delhi, the author |
| —do— | *Report of the finance commission.* 1952, 1957, 1961, 1965, 1969, *and* 1973 Delhi, Manager of Publications |
| —do— | *External assistance. Annual* New Delhi, the author |
| —do— | *Report of the Direct Taxes Administration Enquiry Committee,* Delhi, Manager of Publications, 1960 |
| LAL, G S | *Financial administration in India* Delhi, H P.J. Kapoor, 1969 |
| MAHLER, W.R. | *Sales and excise taxation in India* Bombay, Orient Longmans, 1970 |
| MISRA, B R | *Indian federal finance Rev ed* 5 Calcutta, Orient Longmas, 1963 |
| NARENDRA KUMAR | *Bank nationalisation in India. A symposium* Bombay, Lalvani |
| PALKHIVALA, N A | *Highest taxed nation* Bombay, Manaktalas, 1965 |
| PANANDIKAR, S G. | *Banking in India Rev ed* 10 Bombay, Orient Longmans, 1963 |
| PRABHU, N SINGH | *Role of development banks in a planned economy* Delhi, Vikas 1974 |
| PREMCHAND, A | *Control of Public expenditure in India. Ed* 2. Bombay Allied Publishers, 1970 |
| RAMA RAU, B | *Evolution of central banking in India* Bombay, Vora & Co, 1960 |

| | |
|---|---|
| REDDY, KAIPA NARAYANA | *Growth of public expenditure in India 1872-1968, A Secular and time pattern analysis* New Delhi, Sterling Publishers, 1972 |
| RESERVE BANK OF INDIA | *Report on currency and finance: Annual.* Bombay, the author |
| —do— | *History of the Reserve Bank of India* 1935-1951. Bombay, the author 1970 |
| —do— | *Trend and progress of banking in India Annual* Bombay, the author |
| SETHURAMAN, T.V | *Institutional financing of economic Development in India,* Delhi |
| SHAH, MANUBHAI | *New role of reserve bank in India's economic development* Bombay, Vora & Co , 1970 |
| SINGHVI, L M | *Devaluation of the rupee Its implications and consequences: Ed 2* New Delhi, S Chand, 1968 |
| TANNAN, M L. | *Banking law and practice in India.* Bombay, Thacker and Co , 1972 |
| VENKATARAMAN, K. | *States' finances in India* London, George Allen & Unwin, 1968 |

## 13. PLANNING

| | |
|---|---|
| BHAGWATI, JAGDISH AND DESAI, PADMA | *Indian planning for industrialisation.* London, Oxford University Press, 1970 |
| BHATTACHARYYA, K N. | *Indian plans* Bombay, Asia Publishing House, 1963 |
| —do | *India's fourth plan, test in growthmanship* Bombay, Asia Publishing House, 1966 |
| BRIJ KISHORE AND B P. SINGH, | *Indian economy through the plans* Delhi, National Publishing House, 1969 |
| CHATTERJI, AMIYA | *Central financing of state plans in the Indian federation* Calcutta K L Mukhopadhyay, 1971 |
| DAS, NABAGOPAL | *Indian economy under planning* Calcutta, World Press, 1972 |
| GADGIL, D R | *Planning and economic policy in India Ed 5* Pune, Gokhale Institute of Politics and Economics, 1972 |
| INDIA, MINISTRY OF PLANNING | *National accounts statistics* 1960-61—1972-73 New Delhi, the author, 1975 |
| INDIA, PLANNING COMMISSION | *First five year plan* New Delhi, the author, 1952 |
| —do | *Second five year plan* New Delhi, the author, 1956 |
| —do | *Third five year plan.* New Delhi, the author, 1961 |
| —do | *Fourth five year plan.* New Delhi, the author 1970 |
| —do | *Fourth five year plan Resources, outlays and programmes* New Delhi, the author, 1965 |
| —do | *Fourth plan Mid term* appraisal New Delhi, the author, 1972 |
| —do | *Fifteen five year plan* 1974-79 New Delhi, the author, 1976 |
| —do | *Draft five year plan* 1978-83. New Delhi, the author, 1978 |
| IYENGAR, S K | *Fifteen years of democratic planning 2 V* Bombay, Asia Publishing House, 1965 |
| KRISHNAMACHARI, V.T | *Fundamentals of planning in India* Bombay, Orient Longmans 1962 |
| MEHTA, ASOKA | *Economic planning in India* New Delhi, Young India Publications, 1970 |
| MINHAS, B S | *Planning and the poor* NEW Delhi, S Chand, 1974 |
| NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH | *Current problems of planned economy* New Delhi, the author, 1962 |
| PAI, M R *ed* | *A decade of planning in India, second and third five year plans* Bombay, Popular Prakashan, 1969 |
| PARANJAPE, H K | *Reorganised planning commission* New Delhi, Indian Institute of Public Administration, 1970 |
| SAMANT, D R | *Approach to the fifth plan* 1974-1979 *An appraisal.* Bombay Popular Prakashan, 1973 |

## 14 AGRICULTURE

| | |
|---|---|
| AGGARWAL, D G AND BANSIL, P C | *Economic problems of Indian agriculture* Delhi, Vikas Publications 1969 |
| ALENXANDER, M N *ed* | *Fertiliser statistics* 1976-77 New Delhi, Fertiliser Association of India, 1977 |
| ARORA, R C | *Development of agriculture and allied sectors: An integrated area approach* New Delhi, S. Chand, 1976 |
| BHATIA, B M | *India's food problems and policy since independence.* Bombay, Somaiya Publications, 1970 |
| DAKSHINAMURTI, C. ETC. | *Water resources of India and their utilization in agriculture* New Delhi, Water Technology Centre, IARI. 1973 |

DASGUPTA, A K — *Agricultural and economic development in India* New Delhi, Associated Publishing House, 1973

DWIVEDI, R C — *New strategy of agricultural development in India.* Meerut Loyal Book Depot, 1972

HART, S C — *New India's rivers* Bombay, Orient Longmans, 1956

HUNTER, GUY — *Administration of agricultural development Lesson from India* Bombay, Oxford University Press, 1971

INDIA, MINISTRY OF AGRICULTURE AND IRRIGATION — *National Commission on Agriculture* 1976 . *Report* New Delhi, the author, 1977

INDIA, MINISTRY OF FOOD AND AGRICULTURE — *Report of the Grow More food Enquiry Committee* New Delhi, the author, 1952

—do— *Report of the foodgrains Enquiry Committee* New Delhi, the author 1957

—do— *Report of the foodgrains Policy Committee* New Delhi, the author 1966

INDIA, MINISTRY OF INFORMATION AND BROADCASTING — *Irrigation and power in the Fourth Plan* New Delhi, Publications Divisions, 1972

—do— *India Irrigation and power projects, five year plans* New Delhi, Publications Division, 1970

INDIA, MINISTRY OF IRRIGATION & POWER — *Rise in the costs of irrigation and multipurpose projects Report of the expert Committee.* New Delhi, the author, 1973

INDIAN COUNCIL OF AGRICULTURAL RESEARCH — *Agricultural research in India Achievements and outlook* New Delhi, the author, 1972

—do— *Handbook of agriculture* New Delhi, the author, 1970

JAIN, S C — *Agricultural policy in India* Bombay, Allied Publishers 1970

JOSHI, P C — *Land reforms in India Trends and perspectives* Bombay Allied Publishers, 1975

KALRA, O P — *Agricultural policy in India* Bombay, Popular Prakashan, 1971

KULKARNI, D G — *People and agriculture* Bombay, Orient Longmans, 1970

MEMORIA, C B — *Agricultural problems of India Ed* 6 Allahabad, Kitab Mahal, 1972

MIRCHANDANI, G G *ed.* — *Aspects of agriculture in India* Bombay, Allied Publishers, 1973

NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH — *Scientific assessment of flood damages* New Delhi, the author, 1968

RAJGOPAL, C AND JASPAL SINGH — *Adoption of agricultural innovations* Delhi, National Publishing House, 1971

C H RAO, HANUMANTHA, — *Technological change and distribution of gains in Indian agriculture,* Delhi, Macmillan, 1975

RAO, K L — *Irrigation* New Delhi, Publications Division, 1972

RAY, A C — *Co-operative farming in India* Calcutta, P. Ghosh & Co. 1978

SANGHVI, PRAGULLA — *Surplus manpower in agriculture and economic development with special reference to India* Bombay, Asia Publishing House 1969

SEN, SUDHIR — *Reaping the green revolutions; Food and jobs for all* New Delhi, McGraw-Hill Publishing Co , 1975

WADHWA, D F — *Agrarian Legislation in India* V 1 Bombay, Orient Longmans, 1973

## 15 RURAL DEVELOPMENT

BHATTACHARYA, S N — *Community development : An analysis of the programme in India.* Calcutta, Academic Publishers, 1970

DESAI, A R — *Rural sociology in India* Bombay, Popular Prakashan, 1969

DEY, S K — *Sahakari samaj . The co-operative commonwealth* Bombay, Asia Publishing House, 1969

—do— *Power to the people A chronicle of India 1947-67* Bombay, Orient Longmans, 1969

ENSMINGER, DOUGRAS — *Rural India in transition* New Delhi, All India Panchayat Parishad, 1972

GANGRADE, K D. — *Community organisation in India* Bombay, Popular Prakashan, 1971

JAIN, NETRA PAL — *Rural reconstruction in India and China A comparative study* New Delhi, Sterling Publishers, 1970

MANN, HARBANS SINGH — *Analysis of some problems of community development in India.* Delhi, Atma Ram & Sons, 1967

MEEL OR, JOHN W. etc — *Developing rural India Plan and practice* New York, Cornell University Press, 1968

NANAVATI, M.B. AND ANJARIA, J J — *Indian rural problem.* Bombay, Indian Society of Agricultural Economics, 1975

SRINIVAS, M N. — *Indian villages. Rev. ed. 2.* Bombay, Asia Publishing House, 1966

VENKATARAYAPPA, K.N. — *Rural society and social change* Bombay, Popular Prakashan, 1973

## 16 CIVIL SUPPLIES AND COOPERATION

CHAUBEY, B N — *Principles and practice of cooperative banking in India.* Bombay, Asia Publishing House, 1968

GOYAL, S K — *Consumers' cooperative movement in India* Meerut, Meenakshi Prakashan, 1972

HOUGH, E M — *Cooperative movement in India Ed 5.* Bombay, Oxford University Press, 1966

KHUSRO, A M AND AGARWAL, A.N — *Problems of cooperative farming in India* Bombay, Asia Publishing House, 1961

MATHUR, B K. — *Cooperation in India A critical analysis of the cooperative movement in India's planned economy.* Agra, Sahitya Bhavan, 1971

RAO, L R — *Rural cooperatives in India.* Delhi, Sultan Chand, 1974

RESERVE BANK OF INDIA — *Review of the cooperative movement in India, 1966-68.* Bombay, the author, 1970

—do— — *Statistical statements relating to cooperative movement in India: Annual.* Bombay, the author.

SAXENA, K K — *Evolution of cooperative thought.* Bombay, Somaiya Publications 1974

SINHA, B K — *Cooperative in India.* New Delhi National Cooperative Union of India, 1968

SRIVASTAVA, G P. — *Traditional forms of cooperation in India.* New Delhi, Indian Co-operative Union, 1962

SVARDSROM, K F. — *Agricultural marketing for cooperators.* Calcutta, Allied Publishers, 1969

THORNER, D — *Agricultural cooperatives in India.* Bombay, Asia Publishing House, 1964

## 17. ENERGY

BASU, S.K. AND MUKHERJEE, S B — *Evolution of Damodar canals*, 1959-60. New Delhi, Asia Publishing House, 1963

CHAUCHURI, M R — *Power resources in India.* New Delhi, Oxford & IBH Publishing Co, 1970

DASGUPTA, B. — *Oil industry in India. Some economic aspects.* London, Frank Cass, 1971

INDIA, MINISTRY OF ENERGY — *Report of the fuel policy committee.* Delhi, Manager of Publication, 1975

INDIAN MINISTRY OF INFORMATION AND BROADCASTING — *25-years of CWPC* 1945—1970 New Delhi, DAVP, 1970

—do— — *India: Irrigation and power projects five year plans.* New Delhi, Publications Division, 1970

INDIA, MINISTRY OF IRRIGATION AND POWER — *Public electricity supply: All India statistical summary Annual* New Delhi, the author.

INDIA, MINISTRY OF PETROLEUM AND CHEMICALS — *Indian, petroleum and chemicals statistics Annual* New Delhi, the author.

INDIA, PLANNING COMMISSION — *Report on evaluation of rural electrification programme* New Delhi, the author, 1966

KUMARAM ANGALAM, S M. — *Coal industry in India· Nationalisation and task ahead* New Delhi. Oxford, 1973

MEHTA, BALRAJ — *India and the world oil crisis.* New Delhi, Sterling Publishers, 1974

NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH — *Scientific assessment of flood damages* New Delhi, the author, 1968

RANGAPPA, K S *ed* — *Irrigation and power in the three plans.* New Delhi, Publications Division, 1968

## 18. INDUSTRY


AGGARWAL, G C — *Public Sector steel industry in India* Allahabad, Chaitanya Pub. House, 1976

ALEXANDER, P C — *Industrial estates in India* Bombay, Asia Publishing House, 1963

BIPIN BEHARI — *Rural industrialization in India* New Delhi, Vikas Publishing House, 1976

CHAUDHURI, M R — *Indian industries: Development and location* Calcutta, Oxford & IBH Publishing Co 1970

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH — *Wealth of India : A dictionary of Indian raw materials and industrial products* New Delhi, the author, 1948-73

DAGLI, VADILAL *ed* — *Commerce year book of public sector 1975-76* Bombay, Commerce Ltd , 1977.

—do— — *Public sector in India* Bombay, Vora & Co 1969

DAS, NABAGOPAL — *Industrial enterprise in India Ed* 4 Bombay, Orient Longmans, 1962

GADGIL, D R — *Industrial evolution of India in recent times* 1860-1939. *ED* 3, Bombay, Oxford university Press 1971.

GANDHI, M P. — *Major Industries of India, 1970-71* Bombay, M P Gandhi & Co , 1972

HAZARAY, M P — *Industrial recession in India* New Delhi, S Chand & Co , 1970

HAZARI, R K — *Monopolies and their regulations in India* Bombay, Popular Prakashan, 1967

INDIA, MINISTRY OF INDUSTRIAL DEVELOPMENT — *Report of the Industrial Licensing policy Enquiry Committee* Delhi, Manager of Publications, 1969

INTERNAL TRADE AND COMPANY AFFAIRS

—do— — *Small scale industries* New Delhi, Development Commissioner, Small Scale Industries, 1971

—do— — *Report of the Committee on Distribution of Income and Levels of Living* Delhi, Manager of Publications, 1964

—do— — *Report of the Monopolies Enquiry Commissions* Delhi, Manager of Publications, 1965

INDIA MINISTRY OF PETROLEUM AND CHEMICALS — *Report of the committee on drug and pharmaceutical industry.* New Delhi, the author, 1975

INDIA, PLANNING COMMISSION — *Programmes of industrial development* 1951-56, 1956-61 *and* 1961-66 Delhi, Manager of Publications

INDIA, RESERVE BANK OF INDIA — *Foreign collaboration in Indian industries Second survey report* 1974 Bombay, the author, 1974

JAIN, R.K — *Management of state enterprises in India* Bombay, Manaktalas 1967

JOSHI, L A — *Control of industry in India* Bombay, Vora & Co , 1965

KAUSHAL, O P — *Management organisation and control in public enterprises* Bombay Allied Publishers, 1970.

KHERA, S S — *Management and control in public enterprises Ed* 2 Bombay, Asia Publishing House, 1972

KOTHARI — *Kothari's economic and industrial guide of India* 1976. Madras, Kothari & sons, 1976

KUST, M J. — *Foreign enterprises in India* Bombay, Oxford University Press, 1969

NAMJOSHI, M.V. — *Monopolies in India policy proposals for mixed economy.* Bombay Lalvani Publishing House, 1966

RAMANAND RAM, V V. *ed.* — *Working of the public sector,* Bombay, Allied Publishers, 1970

VAKIL C N *ed* — *Industrial development of India: Policy and problems* New Delhi, Orient Longmans, 1973

Vepa, RAM K. — *Small industry in the seventies* Delhi, Vikas Publications, 1971

WADIA, M D N — *Minerals of India* New Delhi, National Book Trust, 1966


## 19 COMMERCE


AGGARWAL, C P. — *Export methods and services in India. Ed* 2 Chandausi, Indian Export Institute, 1972

BHARDWAJ, R. — *Structural basis of India's foreign trade.* Bombay, Allied Publishers, 1970

DAGLI, VADILAL *ed.* — *India's foreign trade.* Bombay, Vora & Co , 1973

DASS, K K — *Foreign trade and foreign exchange*. Calcutta, Progressive Publishers, 1970

INDIA, MINISTRY OF COMMERCE — *Report of the Study Team on Import and Export Trade Control Organisation 2V* New Delhi, the author, 1966

—do— *Import trade control policy, Annual 2V* New Delhi, the author,

—do— *Import trade controls Handbook of rules and procedure Annual* New Delhi, the author

INDIAN INSTITUTE OF FOREIGN TRADE — *Seminar on export pricings* New Delhi, the author, 1970

—do— *Trading with the world Country profiles.* New Delhi, the author 1972

JAIN, O P. — *Regional cooperation for trade in Asia Export opportunities for Indian industry and trade* New Delhi, Commercial Publications Bureau, 1973

RAO, CHATRATHI, — *Export marketing in India* Ahmedabad, Balgovind Prakashan 1970

SHARMA, G D. — *Exporting to worlds richest countries* Delhi, Press and Publication Agency, 1976

SHOURIE, H D — *UNCTAD II A step forward* New Delhi, Indian Institute of Foreign Trade, 1969

VANKATASUBBIAH, M — *Enterprise and economic change: 50 years of FICCI* New Delhi, Vikas Pub, 1977

WINTER L G AND MEHTA, S S — *Export marketing operations* New Delhi, Indian Institute of Foreign Trade, 1970


## 20 TRANSPORT


AMBA PRASAD — *Indian railways A study in public utility administration* Bombay, Asia Publishing House, 1960

BHATNAGAR, K P — *Transport in modern India Ed* 8, Kanpur, Kishore Publishing House, 1970

DHEKNEY, M R — *Air transport in India Growth and problems.* Bombay, Vora Co

INDIA, MINISTRY OF RAILWAYS — *Indian railways year book* 1976-77. New Delhi, the author, 1969

INDIA, MINISTRY OF TRANSPORT AND COMMUNICATIONS — *Report of Intermediate Ports Development Committee.* New Delhi, the author, 1967

—do— *Road Transport Reorganisation Committee Report* New Delhi, the author, 1959

INDIA, PLANNING COMMISSION — *Committee on transport policy and coordination Final report* New Delhi, the author, 1966

—do— *Transport requirements in relation to five year plans Indian experience* 1951-52 *to* 1960-61 New Delhi, the author

MOOKERJI, R K — *Indian shipping History of the seaborne trade and maritime activities of the Indians from the earliest times Ed* 2 Bombay, Orient Longmans, 1957

RAM, M S — *Shipping.* Bombay, Asia Publishing House, 1971

SAHNI, J N — *Indian railways One hundred years,* 1853-1953 New Delhi, Ministry of Railways, 1953

SANJIVARAO, T S — *Short history of modern Indian shipping.* Bombay. Popular Prakashan, 1965

SRIDHARAN, K — *Maritime history of India* New Delhi, Publications Division, 1965


## 21 COMMUNICATIONS


CLARKE, GEOFFREY — *Post office in India and its story* London, Lane, 1921

SRIDHARANI, KRISHANLAL — *Story of Indian telegraphs · A century of progress* New Delhi, Posts and Telegraphs Department, 1953


## 22 LABOUR


AGARWAL, S P. — *Manpower demand, concepts and methodology* Meerut, Meenakshi Prakashan, 1970

AGGARWAL, O.P — *Conditions of employment and disciplinary action against workmen in industrial and commercial establishment and shops* Delhi, Metropolitan, Book Co, 1969

ALL INDIA TRADE UNION CONGRESS — *Asian trade seminar: A report and documents* New Delhi. the author, 1968

BHIR B S *ed* — *Dimensions of industrial relations in India* Bombay United Asia Publications, 1970

DAS, NABAGOPAL — *Unemployment and employment planning* Calcutta, Orient Longmans, 1972

FONSECA, A J — *Wage determination and organised labour in India* Bombay, Oxford University Press, 1970

GIRI V V — *Labour problem in Indian industry* Bombay, Asia Publishing House, 1958

—do— — *Jobs for our millions* Madras, Vyasa Publications, 1970

INDIA LABOUR BUREAU — *Indian labour statistics Annual* Simla, the author

—do— — *Indian labour year-book* Simla, the author

—do— — *Trade unions in India* 1966 Delhi, Manager of Publications 1972

INDIA, MINISTRY OF LABOUR — *Report of the National Commission on Labour* Delhi, Manager of Publications, 1969

INDIA, MINISTRY OF LABOUR AND REHABILITATION — *Report the joint workshop on employment generation* New Delhi, the author, 1973

INDIA PLANNING COMMISSION — *Report of the Committee of Experts on Unemployment Estimates* New Delhi, the author, 1970

INDIAN LAW INSTITUTE — *Labour law and labour relations* Bombay, N M Tripathi, 1968

KARNIK, V B — *Indian labour problems and prospects.* Calcutta, Minerva Associates 1974

—do— — *Trade unions and politics* Bombay, Bombay University, 1970

MALIK, P L — *Industrial law* Lucknow, Eastern Book Co , 1971

MAST, M K — *Trade union movement in Indian railways* Meerut, Meenakshi Prakashan, 1969

PALEKAR, S A — *Problems of wage policy for economic development with special reference to India* Bombay, Asia Publishing House, 1962

PANT, S C — *Indian labour problems* Allahabad, Chaitanya Publishing House, 1970

RANGREKAR, S B — *Employment theory in a labour surplus economy.* Bombay, Popular Prakashan, 1971

SANJIVAYYA, D — *Labour problems and industrial development in India* New Delhi, Oxford & IBH Publishing Co , 1970

SUBRAMANIAN, K N — *Wages in India* New Delhi, Tata McGrow-Hill, 1977

TOBIAS, GEORGE AND QUEENE R S — *India's manpower strategy revised* (1947-1967) Bombay, N M. Tripathi, 1969

VAID, K N — *Labour welfare in India* New Delhi, Shri Ram Centre for Industrial Relations, 1970

VARKEY, N K. — *Handoook of labour legislation in India* Bombay, Lalvani Publishing House, 1968


## 23 HOUSING


DESHPANDE, R S — *Cheap and healthy homes for the middle classes of India Ed 7* Pune, United Book Corporation, 1969

INDIA MINISTRY OF WORKS, HOUSING AND SUPPLY — *Building materials and housing in India: A review* New Delhi, the author, 1957

—do— — *Report on residential buildings Committee on plan projects* New Delhi, the author, 1961

—do— — *Report of the Working Group on Housing and Urban Development in the Third five Year Plan* New Delhi, the author, 1960

—do— — *Problems of housing in India.* New Delhi the author, 1967

—do— — *Village housing projects scheme Grant of loans to state governments for improvement on aided self-help* New Delhi, the author, 1960

—do— — *Report of the Working group on housing cooperation.* New Delhi, the author, 1964

INDIA, NATIONAL BUILDING ORGANISATION — *Benefits of subsidized housing to industrial workers* Delhi, Manager Publications, 1972

—do— — *Handbook of rural housing and village planning* Delhi, Manager of Publications, 1968

—do— — *Selected papers from training course on sociological and economic aspects of housing* Delhi, Manager of Publications, 1972

INDIAN INSTITUTE OF PUBLIC ADMINISTRATION — *Problems of urban housing Report of a seminar organised by the Indian Institute of Public Administration* Bombay Popular Book Depot, 1960

INDIAN STANDARDS INSTITUTION — *National building code of India* New Delhi, the author, [illegible]

| | |
|---|---|
| INDIAN STATISTICAL INSTITUTE | *Some results relating to construction of pucca houses in rural and urban areas (required by the National Buildings Organsation): Twenty-second round, July* 1967-*June* 1968 Delhi, Manager of Publications, 1970 |
| —do— | *Tables with notes on housing condition: Eighteenth round, Feb.,* 1963-*Jan.*, 1964 Delhi, Manager of Publications, 1970 |
| JAGMOHAN | *Rebuilding Shahjahanabad The walled city of Delhi.* Delhi, Vikas Publications, 1975 |
| MATHUR, OM | *Housing: Standards, costs, designs,* New Delhi, the author, 1970 |
| NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH ECONOMIC RESEARCH | *Tax incidence on housing.* New Delhi, the author, 1963 |
| SINHA, BAKSHI DAYANATH | *Housing growth in India.* New Delhi, Arnold-Heineman, 1976 |

# INDEX

# INDEX

**F**

## G

**O**



**P**

## T

# ADVERTISEMENTS



# Food for the hungry millions. If...

If more acres of fallow land are brought under the plough

If more rivers are diverted to parched fields.

If more irrigation projects are taken up

This is a reality today

The 5th Plan envisages an outlay of Rs 4935 crores for agriculture A major portion of this will be for irrigation projects – digging canals, extending river systems, constructing artificial reservoirs

In this as in many other vital sectors, BEML has been first in the field moving earth, making way for progress With its range of earthmovers dozers, dumpers, scrapers, graders shovels

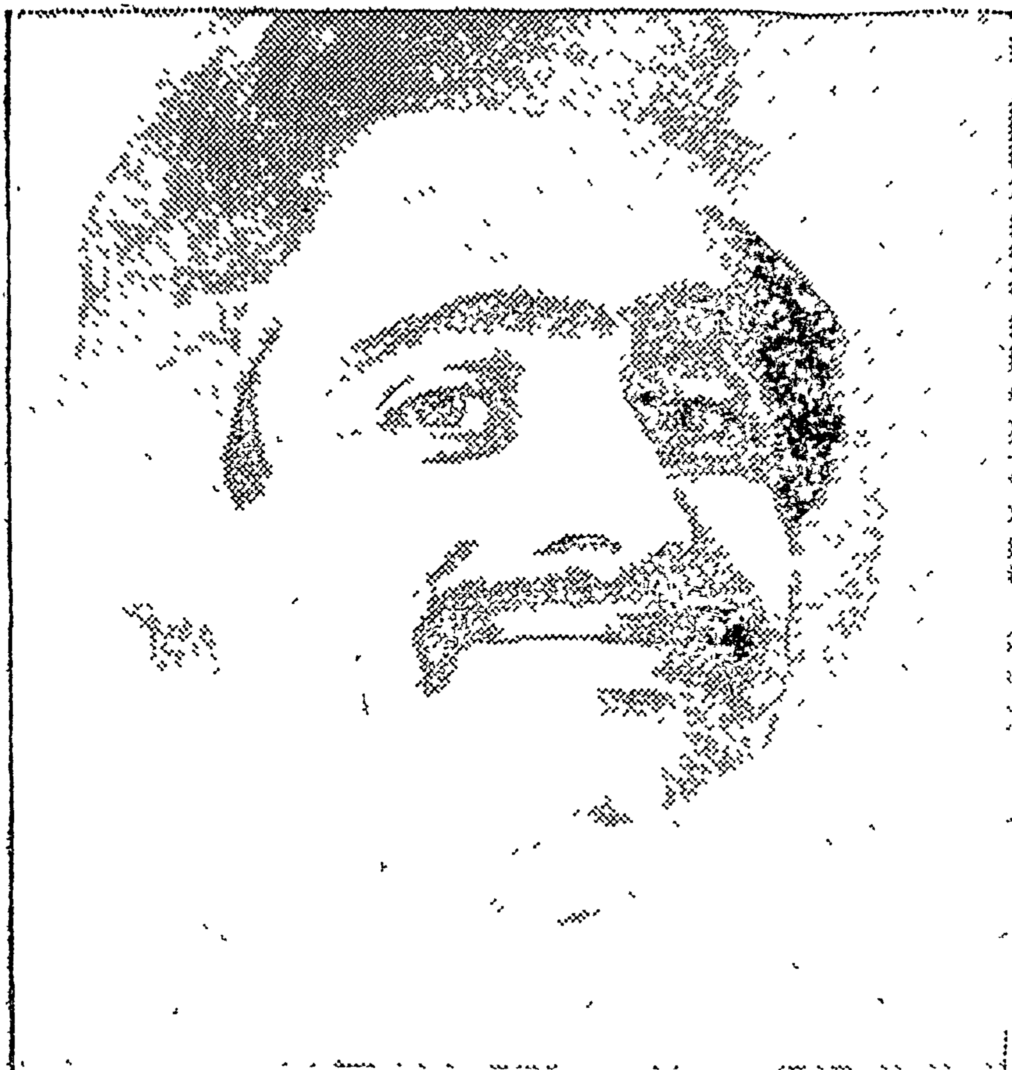
BEML's involvement goes far beyond merely supplying the equipment for irrigation projects. Or for road building. Or power projects. Or mining.

It lies in the reservoir of technology in earthmoving that BEML has developed Technology that is on call, to meet the challenges of tomorrow

a great movement

BHARAT EARTH MOVERS LIMITED

CAS-BEML-7729



# The Smile we cherish most-

## Our Customer's Smile of Satisfaction

**Bank of Baroda**

A Government of India Undertaking

A network of over 1100 branches in India and abroad - in Belgium, Fiji Islands, Guyana, Kenya, Mauritius Sultanate of Oman, United Arab Emirates and U K.

BOB 24 B

Adv. 4

There are many ways to get

# STEEL PIPES OF 21.90 cms ($8\frac{5}{8}''$) TO 162.56 cms (64″) Diameter.

WHY NOT ADOPT THE EASIEST
AND THE BEST WAY ?

## YES ! FROM ONE SOURCE : ROURKELA

**Today, Rourkela makes available—**

* ERW Pipes from 21 90 cms ($8\frac{5}{8}''$) to 45 72 cms (18″) dia
* Spiral Weld Pipes from 35 56 cms (14″) to 162 56 cms (64″) dia.
* From API quality to commercial quality

For large diameter requirements Spiral Weld Pipes are much better than those manufactured by plate bending and welding

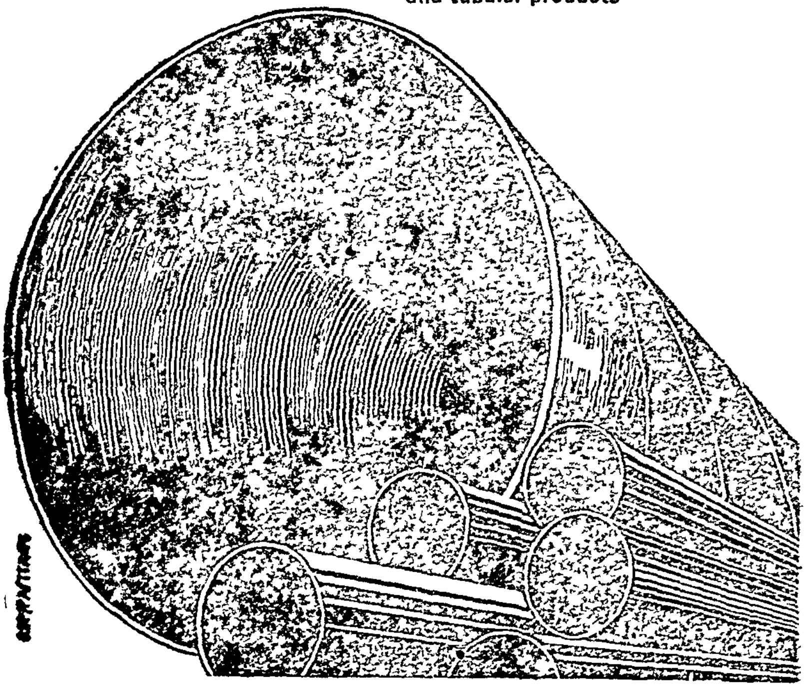
SPIRAL WELD PIPES
—have better weld strength and longer life
—are absolutely round and straight
—and for a given pressure, pipes of lesser wall thickness can be used

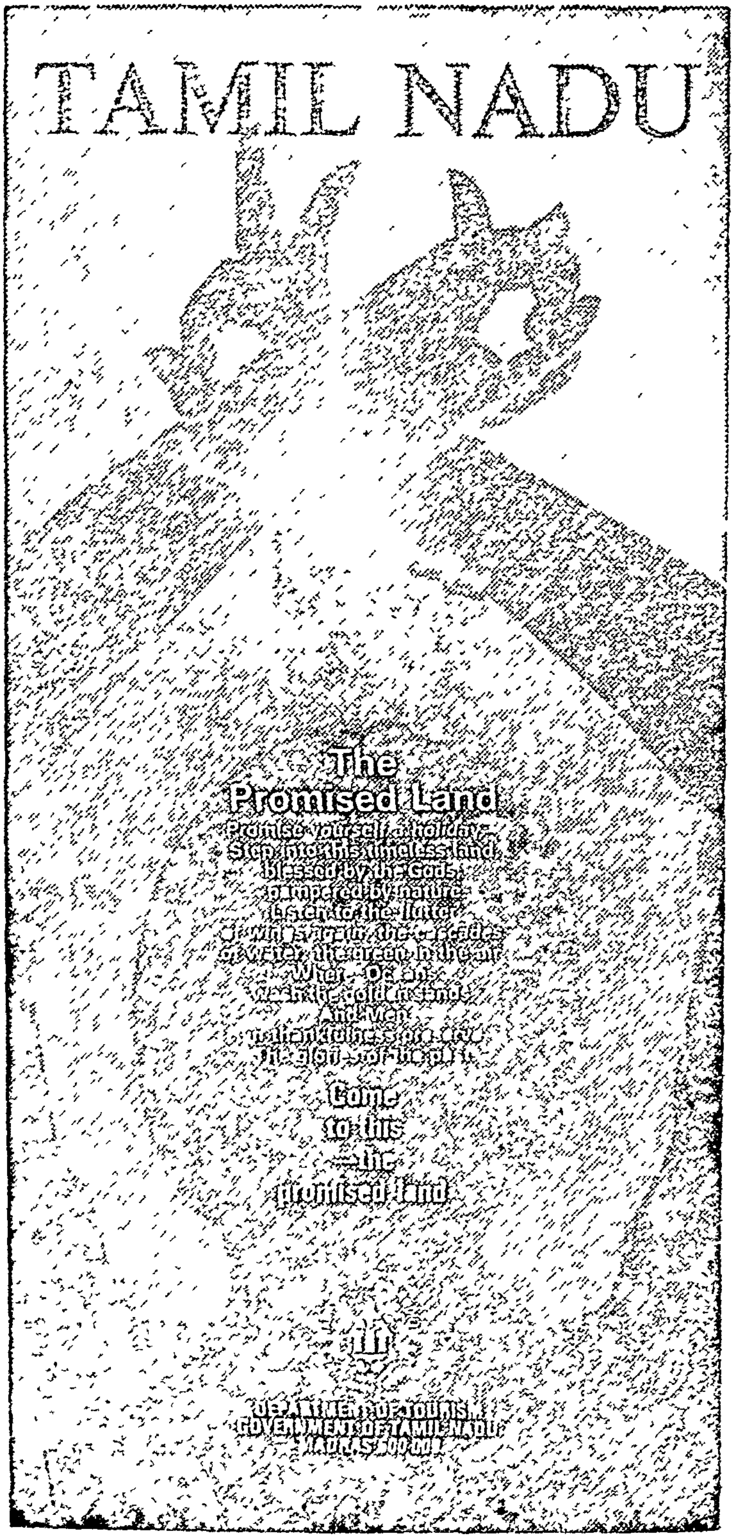
Rourkela s new Spiral Weld Pipe Plant will be busy for the coming $2\frac{1}{2}$ years in supplying 86000 tonnes of 60 96 cms (24 ) dia API pipes to Indian Oil Corporation for the Mathura Refinery complex Rourkela however can supply 60 96 cms (24″) dia commercial quality spiral weld pipes

Of course ERW Pipes in any size from 21 90 cms (8$\frac{5}{8}$ ) to 45 72 cms (18″) dia in any quality from API to commercial quality are available to choice.

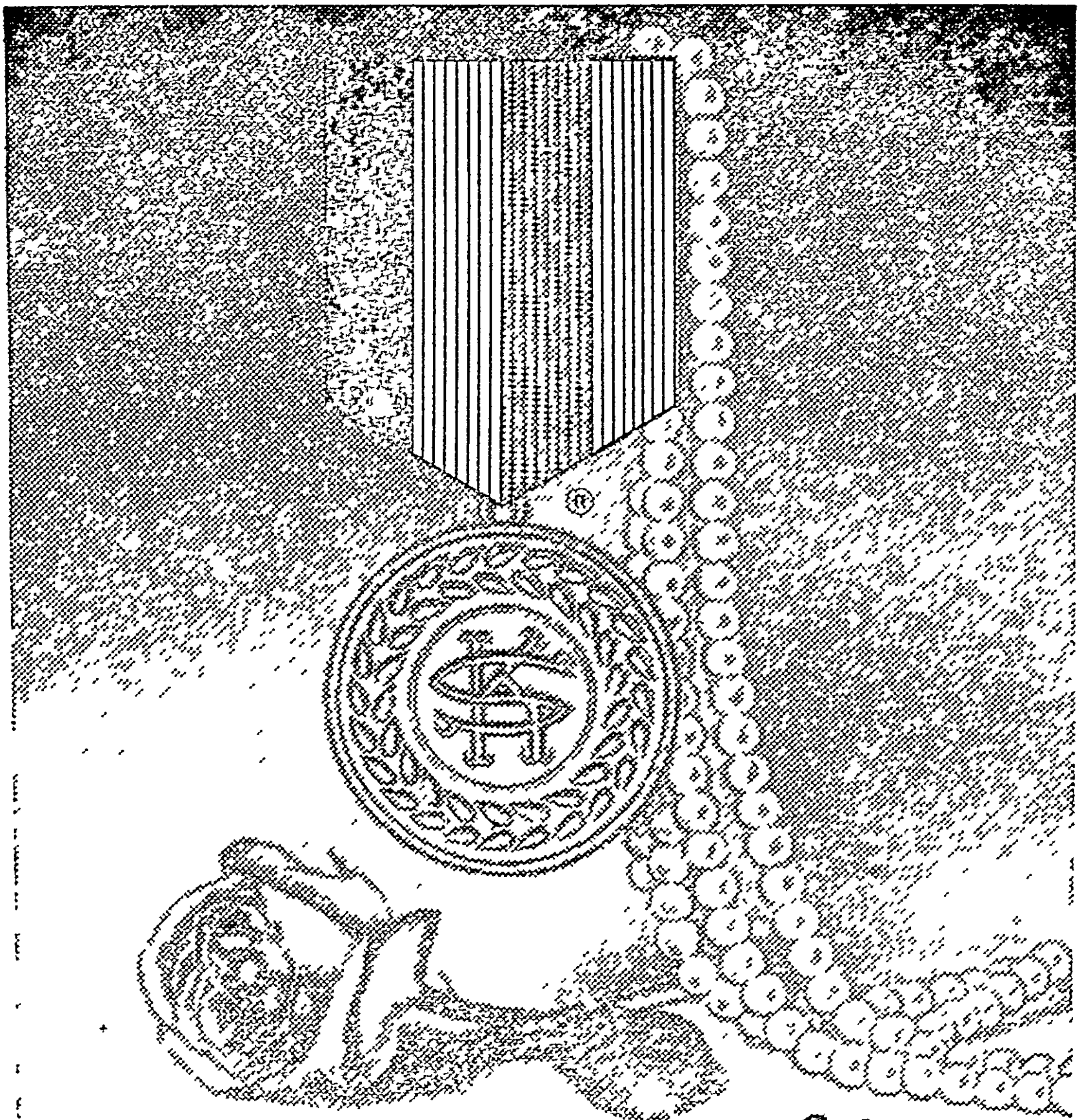
*Nothing pleases Rourkela more than customers' satisfaction*

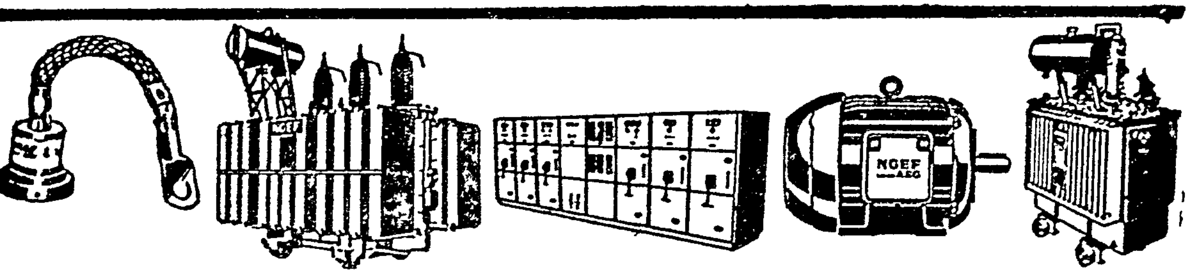
**ROURKELA STEEL PLANT**
Makers of sophisticated flat
and tubular products




TAMIL NADU
The Promised Land
Promise yourself a holiday.
Step into this timeless land,
blessed by the Gods,
pampered by nature.
Come
to this
— the
promised land

Adv. 8





# INDU is film.

**Photo. Cine. X-ray.**

**It's about time we came out in the open and said so. Because, for the last three years, INDU's been making the entire range of photographic products**

**And HPF is much more than the only company in India to manufacture film· it is one of just six companies in the world which has the sophisticated technology to make photo-sensitized film.**

What makes INDU so special is this there are only six countries in the world which manufacture their own film And, India, thanks to INDU is one of them

INDU has slowly but steadily absorbed technology and know-how from its foreign collaborators and is today making photo film to international standards

**INDU—the leader with the leaders:**

Top professional photographers, film-makers, cinematographers, and radiologists turn to INDU They know that, today, the name INDU is synonymous with quality

**The INDU range—your proof of quality.**

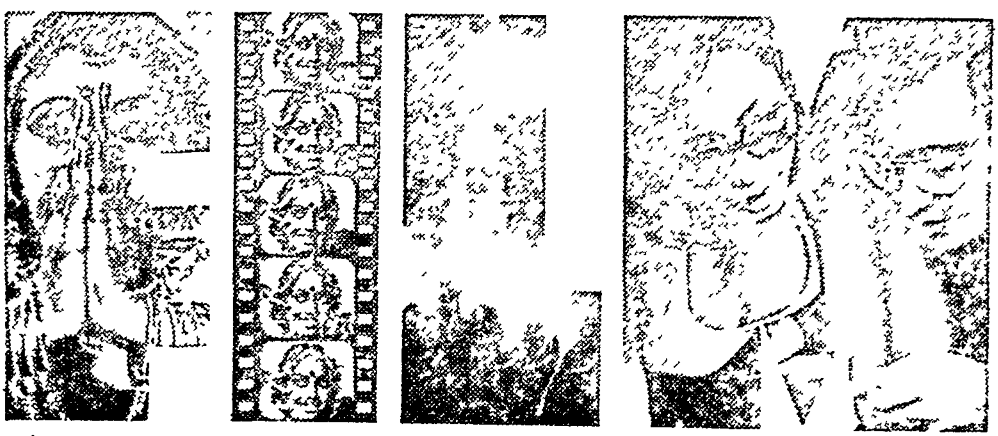
INDU Roll Film INDU Bromide Paper INDU Cine Positive INDU Cine Sound Negative INDU X-ray INDU Polyester Base X-ray INDU Medium Contrast Graphic Arts Film INDU Diapositive INDU Document Copying Paper

Each product offering you quality you can trust — because it's from INDU

Yes, today INDU can make it on its own — and make it better Which is why we say with confidence INDU IS FILM

**Hindustan Photo Films Mfg. Co Ltd:**

(A Government of India Enterprise)
Indunagar Ootacamund 643 005



SAA/HPF/2214

# EXPLOITATION FOR DEVELOPMENT

Natural resources are the nation s wealth Exploiting and putting them into use for the nation s development is our business

Kiribun the first mechanised iron ore mine was commissioned in 1959 with foreign technical expertise In the years that followed NMDC developed highly sophisticated technology of its own An effort that made India self sufficient in planning designing erecting and operating large mechanised iron ore mines

Today NMDC operates 6 iron ore mines and processing plants with capacities of 5 to 6 mt each In addition it operates Asia s only working diamond mines at Panna which has a capacity of 23 250 cts per annum Several other iron ore mines are now being developed and when completed will double the country s iron ore output

Now in its 20th year NMDC breaks new ground By offering complete consultancy services backed with R & D facilities within the country and abroad

**NMDC** — Unearthing new sources for the nation's development

**National Mineral Development Corporation Ltd.**
Pioneer House, Somajiguda Hyderabad 500 004



# IFCI

## INDUSTRIAL FINANCE CORPORATION OF INDIA

### PROVIDES

Medium and long term credit in rupees and foreign currencies to industrial concerns in India.

## OPERATIONS AT A GLANCE (As on December 31, 1977)

IFCI has sanctioned financial assistance amounting to Rs 707 51 crores for 982 industrial projects spread all over the country

346 projects in the industrially less developed areas were sanctioned financial assistance amounting to Rs 267 65 crores which constituted 37 8% of the total sanctions

Industrial cooperatives which are an effective instrument for rural reconstruction and development, were sanctioned financial assistance aggregating Rs 151 87 crores by IFCI ; 160 cooperatives were beneficiaries of this assistance

IFCI has sanctioned financial assistance of Rs 71 24 crores for 168 projects promoted by new entrepreneurs and technologists

## SPECIAL FEATURES

IFCI offers concessional finance for projects in notified industrially less developed areas

IFCI is participating along with other all-India term lending institutions, in the administration of the Soft Loans Scheme for modernisation and rehabilitation of certain industries.

IFCI has announced new promotional schemes which are essentially in the nature of encouraging indigenous technology, ancillary industries and new and small entrepreneurs

## ELIGIBILITY FOR ASSISTANCE FROM IFCI

Any limited company or a registered cooperative society in the medium and large scale sector may apply for assistance

INDUSTRIAL FINANCE CORPORATION OF INDIA
16 PARLIAMENT STREET
NEW DELHI - 110001.

## Social Justice And Rapid Economic Development
## Our Prime Concern

* Uttar Pradesh under the new Janata Govt. has ensured protection to the Harijans, simultaneously guarranteeing adequate compensation in all cases of atrocities on them.

* The State is the first to provide for imprisonment up to 3 years in all cases of forced occupation of land allotted to the Harijans.

* Measures of economic assistance to the Harijans include construction of one hundred houses in each district and provision of loan for cottage industries and agriculture.

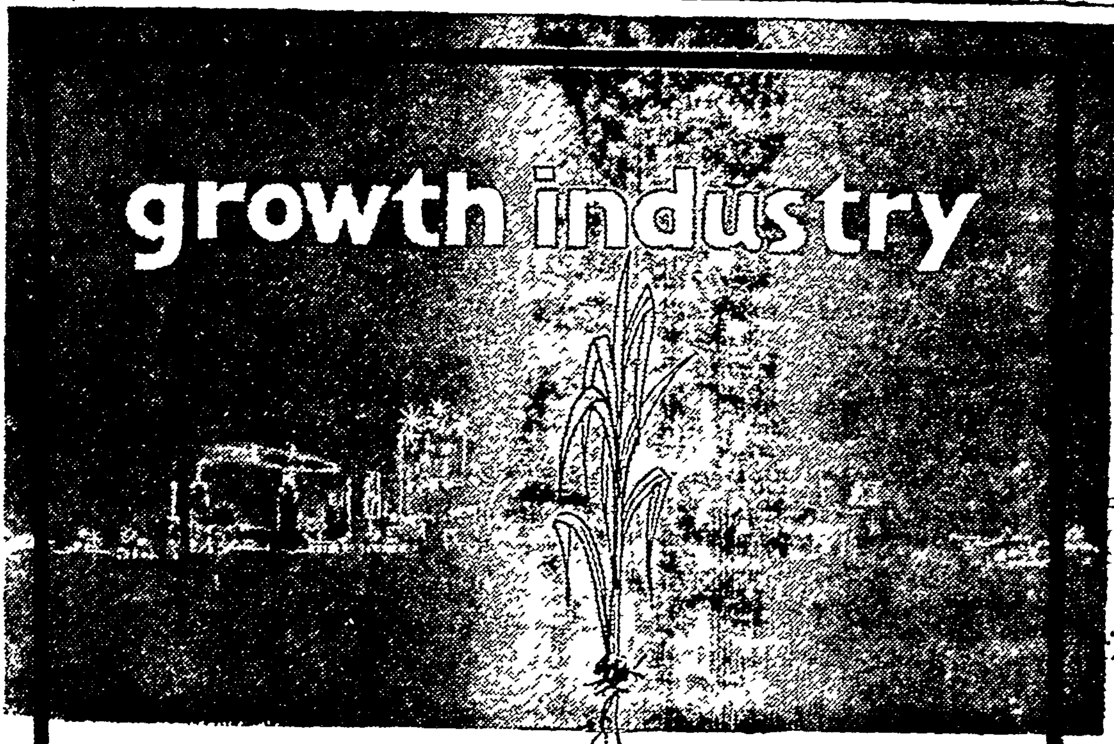
* Decision to abolish land revenue and land development cesson holdings up to 3⅛ acres has resulted in a saving of Rs. 34 crores to the people.

* Record availability of fertilizers in 1977-78 more than 9 lakh tonnes : In 1976-77 the availability was 7 20 lakh tonnes.

* Record production of 51 lakh tonnes of paddy and 90 lakh tonnes of wheat in 1978-79.

* And to gear administrative machinery for efficient performance, a determind bid to root-ou[illegible]ruption at all levels. Appointment of a Lok Ayukta [illegible] engthening of the Vigilance Directorate are importan[illegible]is direction.


Handloom :
the loveliest reason
in the world
to make your house
a home
Flower
fresh drapes
and upholstery
only from
handloom house
a treasure house of textiles
9-A Connaught Place, New Delhi




## Growth is our Business

Of little seeds into healthy plants.
Of poor fields into prosperous farms
Of hesitant peasants into good farmers
Of backward villages into centres of growth
Of village coops into strong business units

## We are in the Growth Industry

Fertiliser Plant capacity doubles every five years A need based concentration of resources to achieve self-sufficiency The second largest sector of industrial investment in India.

## We are also set for growth.

From a 1974 investment of Rs. 100 crores to a 1979 target of Rs. 300 crores. A high point in Cooperative investment for Growth with Social Justice

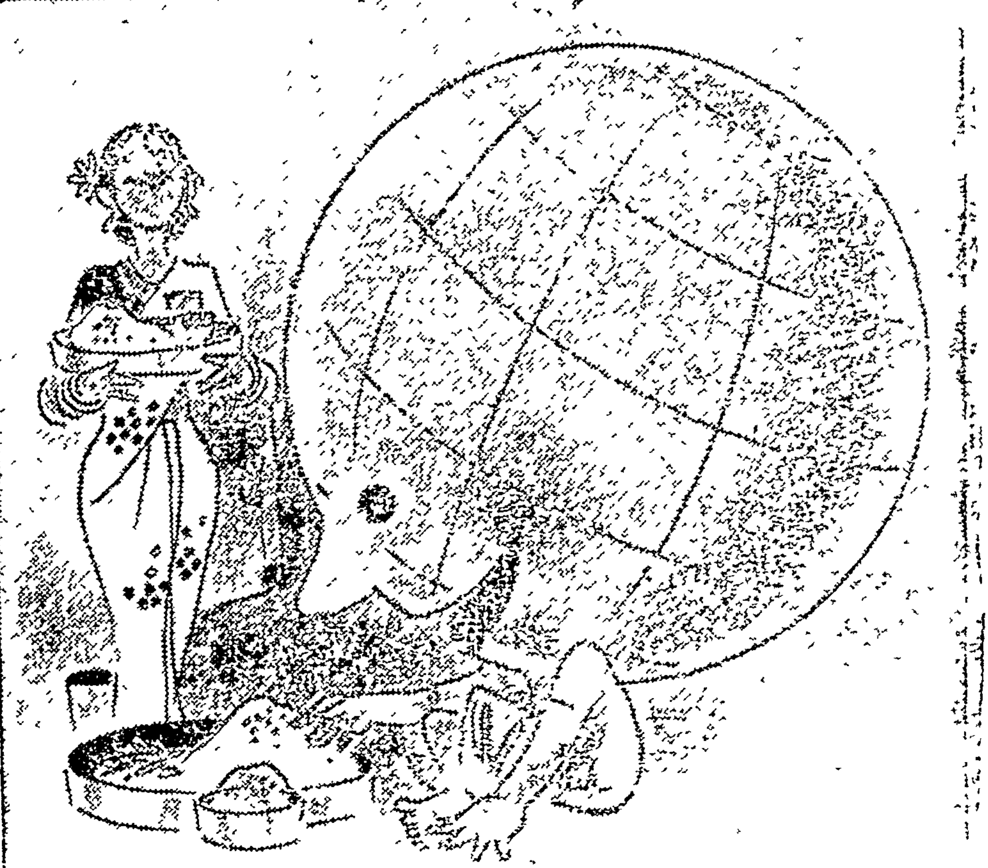
SWAINAD

**IFFCO**

Plants at KALOL KANDLA PHULPUR

**INDIAN FARMERS FERTILISER COOPERATIVE LTD.**

'Mansarover', 90, Nehru Place, New Delhi-110024



# Serving 1/7th of the world in India

Over 3 million sq km of heterogenous terrain make India From snowbound peaks to coastal backwaters From desert regions to dense tropical forests This is where 1/7th of the world population lives

The Food Corporation of India is the single largest public sector corporation serving the food economy of the country It serves both the producers and consumers by procuring, scientifically storing, transporting and distributing the foodgrains In particular, it offers extensive price support to farmers, while aiding the stabilisation of prices for consumers.

The Food Corporation of India employs over 70,000 people in a network that spreads throughout the vast Indian subcontinent. That's how the corporation serves and links India Because food must be available where it's wanted

FOOD CORPORATION OF INDIA

IN THE SERVICE OF THE NATION

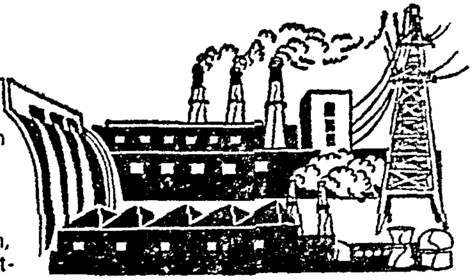
ASP/FCI/1A 78

### STRUCTURE—2
**Production**

BHEL has achieved a rate of production of over 4000 MW per annum Its nine units together produce a comprehensive range of equipment for power generation transmission and utilization

BHEL is also deeply involved in industry Fertilizers, steel, cement, paper, sugar petroleum, aluminium mining and transportation are some vital industries being served by BHEL with sophisticated equipment and services





### STRUCTURE—1
**Organisation**

At BHEL constant organisatic development has led to the optimum utilization of resources human, financial and managerial

BHEL has 53 000 people—7,000 of them qualified engineers Talents that have been fused into a dynamic team—consistently guided by sound management policies

Judicious financial planning has enabled BHEL to increasingly generate funds from internal resources for future growth programmes.

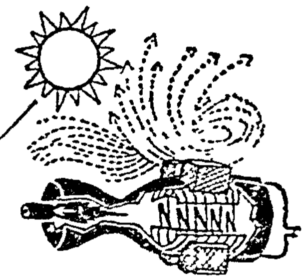
**The strength of BHEL lies in its structure—a unique synthesis of different capabilities. In organisation, in production, in technology, in total service. And these capabilities have enabled BHEL to keep pace with the fast changing requirements of a complex environment. Providing not just products, but a total service for energy. In India and abroad.**

# THE ANATOMY OF POWER



### STRUCTURE—3
**Technology**

BHEL's technological capabilities in power equipment are progressing from 30 MW to 1000 MW sets. Also transformers up to 400 kV. BHEL is now poised for the development of 500 MW sets.



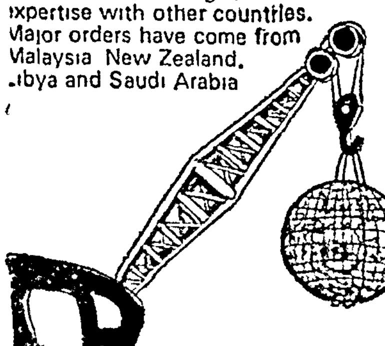
Research is under way for the utilization of solar energy wind power MHD and geothermal energy

Increasing technological capabilities have led to diversifications—like oil rigs seamless steel tubes high-speed turbines, centrifugal compressors, heavy castings and forgings.

### STRUCTURE—5
**Exports**

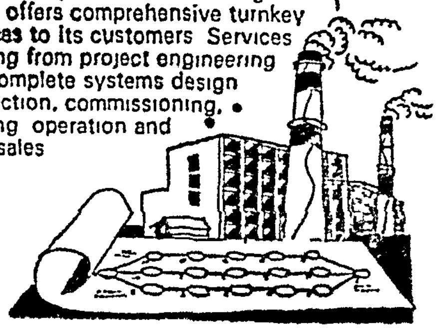
Today BHEL has developed its organisation, technology and services to the level where these are recognised internationally

BHEL is now sharing its expertise with other countries. Major orders have come from Malaysia New Zealand, Libya and Saudi Arabia



### STRUCTURE—4
**Total service**

From concept to commissioning—BHEL offers comprehensive turnkey services to its customers Services ranging from project engineering and complete systems design to erection, commissioning, training operation and after-sales



**Power to the people**

**Bharat Heavy Electricals Limited**

18-20 Kasturba Gandhi Marg
New Delhi 110 001

SAA/BHEL/723